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The West Virginia Medical Journal

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Toxic-Shock Syndrome
Pages 1-6

14th Mid-Winter Clinical Conference
January 23-25

Volume 77 Number 1
January 1981

half-life

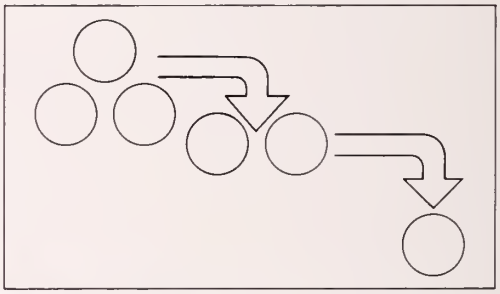
Just one built-in advantage

Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



in the management of symptoms of anxiety

Valium® IV

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2-mg, 5-mg, 10-mg scored tablets

effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page

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Valium® IV
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

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Atropine Sulfate	0 04 mg
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Ru-Tuss Tablets act continuously for 10 to 12 hours
Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated

WARNINGS Ru-Tuss Tablets may cause drowsiness Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings)

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication In children and infants, antihistamine overdosage may produce convulsions and death

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening Not recommended for children under 12 years of age. Tablets are to be swallowed whole

HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

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RU-TUSS® EXPECTORANT

DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains:

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Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold

CONTRAINDICATIONS Hypersensitivity to antihistamines Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated
Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming Ru-Tuss Expectorant may cause drowsiness Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings) Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease Caution should also be used in patients with pulmonary, hepatic or renal insufficiency

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions

DOSAGE AND ADMINISTRATION Adults 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period
Children 6 to 12 years of age ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period Children 2 to 6 years of age ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period Children under 2 years of age Use as directed by a physician

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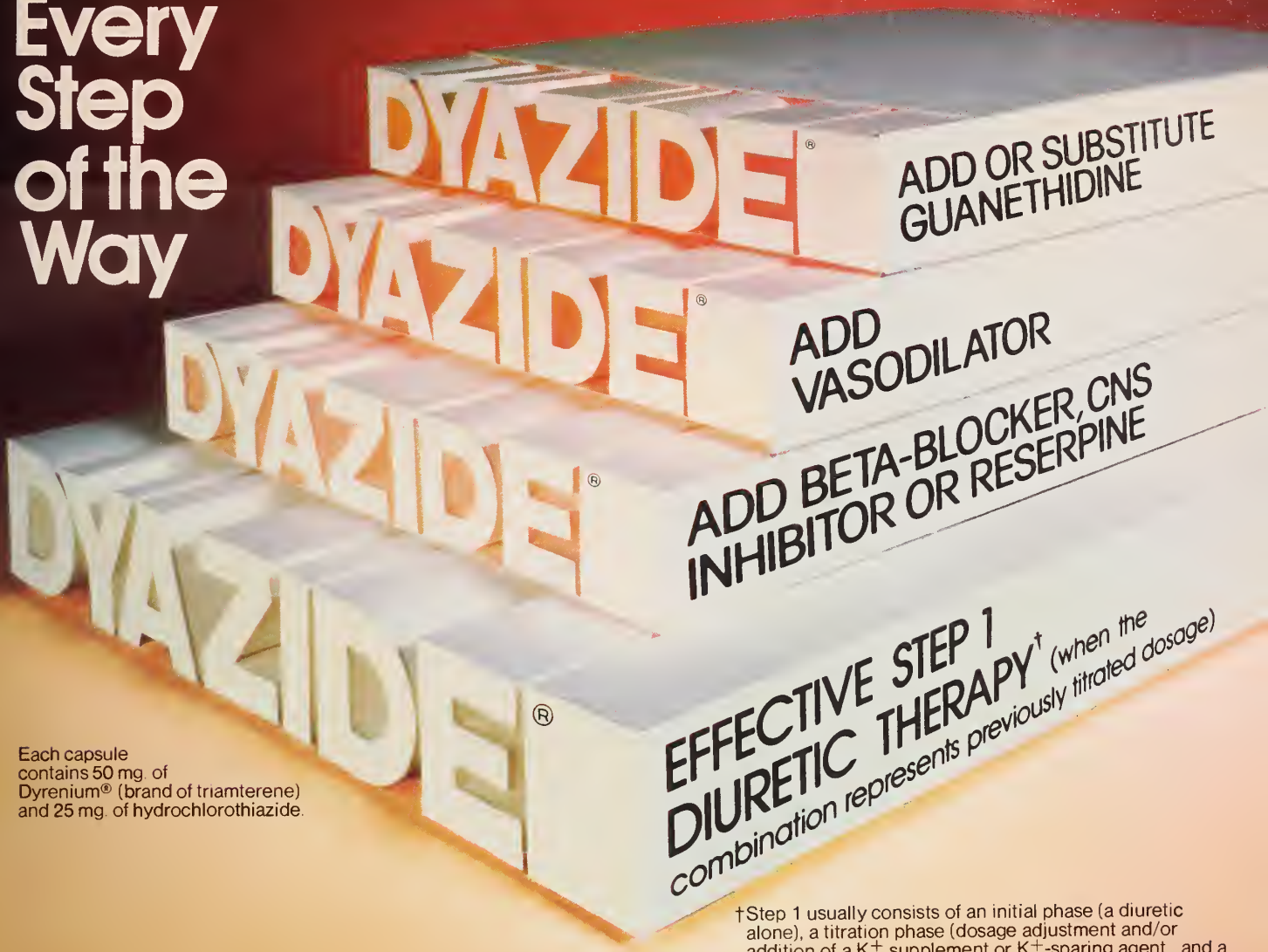

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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When you choose Limbitrol over a phenothiazine-containing product, you minimize the risk of tardive dyskinesia — now associated even with low dose, short-term phenothiazine therapy.[1,2] You also reduce the possibility of other extrapyramidal side effects, which occur in approximately 30% of patients receiving phenothiazines.[3-5] In contrast, the reported incidence of these disturbing reactions with Limbitrol or either of its components alone is rare. (For a complete list of side effects reported with Limbitrol, please consult full disclosure.)

References: 1. Poulsen GW: *NY State J Med 79*: 193-195, Feb 1979. **2.** Hollister LE: Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology from Theory to Practice*, edited by Barchas JD, *et al*. New York, Oxford University Press, 1977, pp.134, 145. **3.** Domino EF: Antipsychotics: phenothiazines, thioxanthenes, butyrophenones, and rauwolfia alkaloids, chap. 25, in *Drill's Pharmacology in Medicine*, ed.4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p.476. **4.** Savner R, DiMascia A: Extrapyramidal syndromes and other neurological side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascia A, Killam KF. New York, Raven Press, 1978, p.1021. **5.** Donlon PT, Stenson RL: *Dis Nerv Syst 37*: 629-635, Nov 1976.

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Please see summary of product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated. Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

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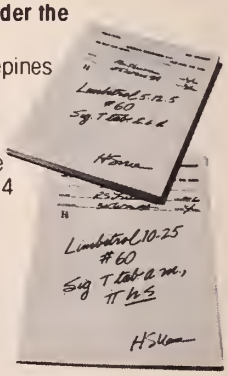

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Toxic-Shock Syndrome: A Case Report –I

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A typical case of toxic-shock syndrome is described. The relationship of this syndrome to previously described syndromes such as the adult scalded skin syndrome and the adult Kawasaki disease is explored. A hypothesis with respect to the pathogenesis of the syndrome is presented.

Since September, 1978, more than 100 cases of a recently recognized syndrome have been reported to the Center for Disease Control.[1, 2] Toxic-shock syndrome typically begins with fever, vomiting and profuse, watery diarrhea, sometimes accompanied by sore throat, headache and myalgias. The disease usually progresses to hypotension and shock within 48 hours. Patients also develop a non-purulent conjunctivitis and a diffuse, macular, erythematous rash with desquamation during the recovery phase. The disease occurs primarily in young women (mean age, 24.8 years with a range of 13-52 years), usually during or immediately following the menstrual period.

Laboratory studies show a leukocytosis with a predominance of immature cells of the granulocytic series. During the first week of illness patients usually have thrombocytopenia, with thrombocytosis usually occurring for several days thereafter. Renal function is abnormal, with an elevated serum creatinine and BUN, and serum bilirubin and creatinine phosphokinase (CPK) levels also elevated. Staphylococcus aureus has been isolated from cervicovaginal cultures in a high precentage of patients.

Case Report

A 19-year-old, white female was seen one day prior to admission complaning of vomiting, diarrhea and fever since the previous morning, and now accompanied by a sore throat. She stated that her temperature had been 103.5°F and she had taken aspirin and acetaminophen. The patient was alert, oriented and in no acute distress. Her temperature was 100.6°F and blood pressure was 110/80. She had slight dullness of the left tympanic membrane and minimal pharyngeal erythema without exudate. Abdominal examination revealed minimal generalized tenderness and normal bowel sounds. Examination of the skin revealed no abnormalities.

A tentative diagnosis of a viral illness was made: a throat culture was taken, and symptomatic treatment consisting of promethazine (Phenergan) and liquid diet was prescribed.

Overnight she worsened and was seen in the Emergency Room the following morning. She was slightly lethargic and acutely ill-appearing with a temperature of 100.6°F, pulse of 120 and blood pressure of 90/60. The pharynx was mildly erythematous without exudate; the left tympanic membrane also was slightly erythematous and dull, and there was moderate conjunctival erythema bilaterally. The neck was supple and there was no lymphadenopathy. Examination of the heart revealed a tachycardia without murmur. Abdominal examination revealed slight, generalized tenderness with active bowel sounds and no rebound tenderness. Pelvic and rectal examinations were unremarkable.

Complete blood count showed a hemoglobin of 13.4 gms. per cent, white count of 10,600/mm^3, with 14 metamyelocytes, 71 bands, 12 segmented neutrophils, and one lymphocyte.

Prior to the onset of this illness, she had been in excellent health. She gave no history of contact with anyone who had been ill and she had not traveled outside of the state. Approximately two weeks prior to the onset of illness, she had visited a farm and had petted a dog which was carrying ticks; however, she denied having a tick on her own body at any time in recent months. She denied dysuria or menstrual dysfunction and had started her menstrual period three days prior to the onset of illness.

Admission Treatment

On admission to the hospital, blood, throat, urine, stool and cervicovaginal cultures were obtained. She was started on fluids, ampicillin (Amcill, Omnipen) and gentamicin (Garamycin), all intravenously. During the first few hours of hospitalization, she continued to have frequent loose bowel movements. When reexamined later in the evening, she was more lethargic, with a blood pressure of 62/38, decreased urine output and marked conjunctival erythema. She was transferred to the intensive care unit and vigorous intravenous fluid therapy was begun. Infectious diseases consultation was obtained, and consideration was given to the diagnosis of leptospirosis or Rocky Mountain spotted fever. Consequently, ampicillin and gentamicin were discontinued and she was started on doxycycline (Vibramycin), 100mg. IV q.12h.

The next morning she appeared more alert with a blood pressure stable at about 75-80/40 and improvement in urinary output. Conjunctival erythema remained prominent and, in addition, a faint erythematous rash had developed on her torso. Some facial puffiness was noted, and furosemide (Lasix) 40mg. IV produced an appreciable diuresis. Later that evening, her systolic blood pressure was 90, and the rash on the torso had become much more prominent, spreading to the extremities while sparing the hands and feet. Conjunctival hyperemia remained striking, and the conjunctivae now appeared icteric.

Thereafter, she continued to improve with clearing of the conjunctival erythema and jaundice, and maintained a normal blood pressure and urinary output. As the rash faded, desquamation occurred, beginning with the face and eventually involving most of her body.

Laboratory Findings

The laboratory findings are summarized in Tables 1 and 2. Table 1 shows the characteristic findings of the differential white blood cell count and the thrombocytopenia. Prothrombin and activated partial thromboplastin times, and fibrinogen and fibrin degradation product levels were all normal. Table 2 illustrates the findings of an elevated BUN which persisted for several days despite good urine output. Also noted is the decrease in serum albumin although the urinalysis never showed more than trace of protein.

The initial urinalysis also showed 10-14 white cells and 25-30 red blood cells per high-powered field. Urinalysis had become normal at the time of discharge from the hospital.

Three blood cultures were negative; throat and stool cultures grew normal flora, and urine culture grew less than 100,000 colonies of E. coli. Culture of the uterine cervix grew 3+ S. aureus and 3 + E. Coli. The S. aureus was resistant to ampicillin but sensitive to tetracycline. The E. coli from urine and cervix showed the same antibiotic sensitivities. Repeat urine culture prior to discharge was negative.

Acute and convalescent complement fixation studies were negative for Rocky Mountain spotted fever, typhus and leptospirosis. The cold agglutinin titer, initially 1:128, was 1:64 one week later. VDRL was non-reactive.

TABLE 1
Hematologic Laboratory Data

	June 19, 1979 (admission)	6/20	6/21	6/22	6/23	6/24	6/26
Hemoglobin (gms%)	13.4		11.0	10.6	10.6		10.0
Leukocytes (per mm^3)	10,600	8,400	12,300	15,100	10,500		9,200
Metamyelocytes (%)	14	25	2	—	—		4
Bands (%)	71	62	55	20	18		7
Segmented Neutrophils (%)	12	9	35	57	44		44
Platelets (per mm^3)	100,000		77,500	42,000	39,000	146.000	207,500

Discussion

This patient's history, physical and laboratory findings, and clinical course are characteristic of the recently described toxic-shock syndrome. This syndrome was first brought to the attention of the medical community by Schrock[3] within the past year. Since that time, approximately 100 cases have been reported and confirmed by the Center for Disease Control. The characteristics of these cases are summarized in Table 3. Of particular note with respect to the pathogenesis of the syndrome in our patient is the onset of symptoms three days after the beginning of menses, the use of tampons, and the isolation of S. aureus from the cervicovaginal culture.

The association between S. aureus and toxic-shock syndrome is suggested but not yet proven. The association and the signs and symptoms are reminiscent of other staphylococcal, toxin-related diseases, i.e., staphylococcal scalded-skin syndrome and staphylococcal food poisoning from preformed toxin. Staphylococcal scalded-skin syndrome has been described as "a spectrum of disease with a single etiology."[4] The emphasis of this syndrome has been on the generalized, exfoliative dermatitis in children with S. aureus infection.

TABLE 2
Other Laboratory Studies

	6/19	6/20	6/21	6/22	6/24	6/26
BUN (mg/dl)	50	63	65	51	41	16
Creatinine (mg/dl)		6.5	4.7			
Total bilirubin (mg/dl)	5.2	4.2	5.4	5.8	2.7	1.4
Albumin (gm/dl)	3.6	2.8	2.8		2.7	3.3

TABLE 3
Characteristics of Cases of Toxic-Shock Syndrome Confirmed by the Center for Disease Control[2]

Age range	12-52 years
Sex	96% women
Use of tampons	100%
Incidence	3/100,000 menstruating women/year
Positive cervicovaginal culture for *S. aureus*	94%
Recurrence of symptoms with a subsequent menstrual period	42%
—if had received appropriate antibiotic	11%
—no appropriate antibiotic	60%
Evidence of person-to-person transmission	None

An intermediate type of infection has been described by Todd *et al.*[5] in seven children, aged 8 to 17, who presented with fever, headache, confusion, scarlatinaform rash, vomiting, watery diarrhea and oliguria. Many of the patients had hypotension and hepatic abnormalities. All had desquamation of affected skin during convalescence. S. aureus was isolated from various sites of all patients, but no patient had a positive blood culture. The S. aureus isolated from the patients all elaborated an epidermal toxin which produced a positive Nikolsky sign in mice.

Similar case reports have appeared in the literature for many years. In 1942, Aranow and Wood[6] reported a 15-year-old female with erythroderma, conjunctival hyperemia, shock, renal failure, and desquamation of the palms and soles during convalescence. She had staphylococcal osteomyelitis and bacteremia. In 1960, Dunnet and Schallibaum[7] reported three cases of a scarlet-fever-like illness due to staphylococcal infection. One case was a 21-year-old female with a septic abortion who presented after a three-day history of vaginal bleeding, diarrhea and vomiting. She was noted to have a bright erythema of the trunk and limbs with subsequent desquamation.

Kawasaki Disease

An area of possible confusion is with what has been called the adult Kaswasaki disease (mucocutaneous lymph node syndrome). The case report of Schlossberg *et al.* was of a 20-year-old female with fever, a diffuse erythematous rash, and diarrhea.[8] A vaginal culture grew S. aureus. The three cases published by Everett were all females, aged 16 to 27, with fever, rash, congested conjunctivae, and reddened palms and soles with desquamation of the fingers and toes.[9] It is possible that most, if not all, of these patients represent the toxic-shock syndrome.

The importance of recognizing these other syndromes which may be the toxic-shock syndrome lies in an understanding of the pathogenesis of the syndrome as well as its prevention and treatment. A reasonable pathogenic hypothesis is that the signs and symptoms are caused by one or more exotoxins produced by S. aureus. It is questionable why this syndrome has been recognized only recently. From the brief review above, it appears that the syndrome has been occurring for many years; however, occurrences are more frequent now.

A possible explanation is the recent popularity of tampon use, which allows an opportunity for large numbers of S. aureus to grow in a situation where sufficient toxins are produced and absorbed into the body. Thus, we hypothesize that large numbers of S. aureus are required on a mucosal surface, and the use of tampons provides an optimum environment for growth of an organism such as S. aureus. Without tampon usage, if S. aureus are present in the cervicovaginal area, the organism drained out during the menstrual period with the menstrual material and only collected and grew on the external perineal area.

With respect to prevention, the syndrome is rare enough that it would not seem reasonable to discourage the use of tampons. However, since recurrences have been reported, it would be wise to discourage tampon usage for a woman who has had the syndrome until it can be documented that her cervicovaginal culture is negative for S. aureus. Appropriate treatment appears to be specific antibiotic therapy aimed at S. aureus, although this does not shorten the course of the disease. Of further consideration is cervicovaginal lavage in order to remove the organism and any free toxin which has not yet been absorbed.

Acknowledgement

We thank Elsa Lamba and Rosanna Clise for their help in preparation of this manuscript.

Editor's Note: Here are generic drugs and trade names (in parentheses) to which reference is made in this manuscript: ampicillin (Amcill, Omnipen), gentamicin (Garamycin) and doxycycline (Vibramycin).

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I have always sought to guide the future — but it is very lonely sometimes trying to play God.

—Oliver Wendell Holmes, Jr.

Toxic-Shock Syndrome: A Case Report –II

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This is a case presentation of toxic-shock syndrome in a 35-year-old female. The illness began during her menstrual period and was characterized by fever, rash, hypotension, vomiting and diarrhea, mucus membrane erythema, abnormal renal and hepatic studies, and final desquamation of palms and soles. Staphylococcus aureus was isolated from the vagina and cervix and was eradicated from these locations with penicillinase-resistant antibiotic. The patient had an uneventful recovery.

MUCH public attention recently has been focused on an apparently new clinical entity called toxic-shock syndrome. We would like to present the first reported case in West Virginia.

The patient is a 35-year-old, white, female medical technician, gravida 2, para 2, with a previous tubal ligation and an otherwise unremarkable menstrual history. Six days prior to admission, she began her menses. For one to two days preceding the onset of menses, she noted a slight vaginal discharge which was white, odoriferous and pruritic. Three days prior to admission, she experienced profuse, watery diarrhea and persistent vomiting accompanied by fevers to 103.5°F. A regular user of Tampax tampons, this patient used only one Rely tampon during this menstrual period, and that was after the onset of her clinical illness.

On the morning of admission, she was given a trial of phenothiazine antiemetics, with some relief from vomiting. She presented to the Emergency Room later that day with fever unresponsive to Tylenol. At that time, she also described bilateral lower thoracic pleuritic pain, dry cough and moderately-severe abdominal cramps.

On physical examination, she was alert and oriented. Her temperature was 39.8; blood pressure, 90/40; pulse, 160, and respirations, 28. Head and neck examination revealed bilateral edema of the lids with slight conjunctival injection. The pharynx was markedly red without exudate while the tongue was dry and coated. The neck was supple and without adenopathy. Cardiovascular examination was normal except for a weak pulse. The chest was clear.

The abdomen was quiet without organomegaly, and showed mild, diffuse tenderness without rebound. On rectal examination, the stool was positive for occult blood. There was a purulent, bloody vaginal discharge: the uterus and adnexae were normal size and slightly tender throughout. Neurological examination was within normal limits. She had a non-pruritic, confluent, red macular rash, more evident on the trunk than on the extremities.

Laboratory Examination

Laboratory examination revealed a white blood count of 6,900 with 81 per cent polys, 8 per cent segs, 10 per cent lymphs and 1 per cent monocytes. Hemoglobin was 12.4, and platelets were within normal limits. Blood gases on room air revealed PH 7.45, PO2 82, PCO2 38.5, and bicarbonate 26.7. Blood sugar was 197; sodium, 124; chloride, 92, and potassium, 4.4. BUN was 51; creatinine, 1.8; SGPT, 13; bilirubin, 0.26, and amylase, 84. CPK was 58.

A wet mount of the vaginal discharge showed many white blood cells: gram stain suggested gram-positive rods. Urinalysis showed specific gravity of 1.013, pH-5, 1+ protein, 10 to 15 white blood cells per high-powered field, 8 to 10 red blood cells per high-powered field, and 6 to 10 coarse, granular casts per low-powered field. Chest x-ray was unremarkable, and EKG showed sinus tachycardia with non-specific ST-T abnormalities and accelerated AV conduction.

Cultures of the nose, throat, vagina, cervix, stool and blood were obtained. IV rehydration was begun, and the patient was admitted to the hospital. She was placed on a penicillinase-resistant antibiotic intravenously.

During the first 48 hours, the patient remained febrile and required large volumes of IV fluids to support a systolic blood pressure greater than 100. Nevertheless, she maintained a good urine output throughout her hypotensive period. The patient responded clinically by her third hospital day when renal function studies had returned to normal. Also on day three, the liver enzymes became abnormal, peaking on day five with an SGOT of 87, LDH of 223, alkaline phosphatase of 655, and bilirubin of 0.5.

Initial cultures of the vagina and cervix grew coagulase-positive Staphylococcus aureus,

Escherichia coli and Klebsiella pneumoniae. The Staphylococcus aureus was resistant to ampicillin and penicillin. Cultures of blood and urine showed no growth. Repeat cervical cultures on day four of the hospital stay grew Escherichia coli, Klebsiella, and Streptococcus group D, documenting eradication of Staphylococcus aureus.

The patient was discharged on day five, at which time the rash had almost cleared. Her fingers began to desquamate on the 13th day after onset of symptoms, at which time she noted recurrence of a macular rash which was pruritic. Antistaphylococcal antibiotics were discontinued at this time after a total of 14 days. Repeat cervical cultures at this time grew normal flora only, and the rash disappeared within five days. Desquamation of her palms and soles continued.

TABLE

Toxic-Shock Syndrome Case Definition

Fever (temperature> 38.9 C [102 F]).

Rash (diffuse macular erythroderma).

Desquamation, 1-2 weeks after onset of illness, particularly of palms and soles.

Hypotension (systolic blood pressure <90 mm Hg. for adults or <5th percentile by age for children <16 years of age, or orthostatic syncope).

Involvement of 3 or more of the following organ systems:

A. Gastrointestinal (vomiting or diarrhea at onset of illness).

B. Muscular (severe myalgia or creatine phosphokinase level >2 x ULN*).

C. Mucous membrane (vaginal, oropharyngeal, or conjunctival hyperemia).

D. Renal (BUN† or Cr‡ >2 x ULN or >5 white blood cells per high-power field—in the absence of a urinary tract infection).

E. Hepatic (total bilirubin, SGOT§, or SGPT¶ >2 x ULN).

F. Hematologic (platelets <100,000/mm^3).

G. Central nervous system (disorientation or alterations in consciousness without focal neurologic signs when fever and hypotension are absent).

Negative results on the following tests, if obtained:

A. Blood, throat, or cerebrospinal fluid cultures.

B. Serologic tests for Rocky Mountain spotted fever, leptospirosis, or measles.

Discussion

As of December 5, 1980, 691 cases of toxic-shock syndrome have been verified by the Center for Disease Control to meet the criteria in the Table.

There have been 65 reported deaths, most associated with refractory hypotension early in the course of the disease. The incidence of toxic-shock syndrome is approximately 3:100,000 menstruating females per year, with a case/fatality ratio of 9.4 per cent. Ninety-five per cent of cases occur during the menstrual periods, and there is a significant physical association with tampon use, especially continuous usage during the menstrual period. Rely tampons in particular have been implicated and have been recalled from the market. Furthermore, the U. S. Food and Drug Administration is considering a requirement that all manufacturers of tampons include a warning on their package that use of tampons may lead to the toxic-shock syndrome.

Current research by the CDC supports an etiologic role for staphylococcus aureus. All Staphylococci isolated have been resistant to ampicillin and penicillin, although sensitive to most other antibiotics. The use of penicillinase-resistant antibiotics has been advocated by the CDC to reduce the incidence of recurrence; however, there appears to be no proof that the antibiotics shorten the course of the disease. Supportive care seems to be the essence of initial management.

We await final delineation of the pathophysiology of this newly-described syndrome.

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Herpes Simplex, Metaherpes: Secondary Invasive Infection Of The Cornea

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A case report of metaherpes, herpes simplex secondary invasive infection of the cornea, is presented. This particular case was controlled with influenza vaccine properly titered and given when pain dictated. Control was achieved within the hour and the result was a quiet eye in two weeks. The dilution technique of Dr. Carleton H. Lee in using the influenza vaccine is explored.

HERPES simplex is a strenuous infection of the cornea that is devastating when it recurs invasively. This secondary invasive infection (metaherpes) is rare in the general practice of ophthalmology.[1, 2] We were able to get control of a secondary invasive herpetic lesion, with retention of 20/20 vision, by using Fluogen (influenza virus vaccine, trivalent, types A and B, 1979-80). Relief of symptoms definitely was from the Fluogen used in titrated amounts.[3]

Case Report

A 29-year-old male had his first dendritic infection in the left cornea, outer upper quadrant, in 1968 while a student in college. There was no known injury to the eye. He was given Stoxil Ophthalmic Ointment 0.5 per cent (brand of idoxuridine in a petrolatum base) to apply every two hours, and a solution of atropine sulphate one per cent to be instilled as a drop every four hours. The eye was painful and there was a brush of vessels, superficial and temporal, penetrating one mm. There were a few cells in the anterior chamber. Eighteen days were needed to quiet the attack. One later episode of pain to the left eye in August, 1974, lasted two days, but there was no staining.

Pain recurred in the left eye December 19, 1979, and he reported to this office December 22, 1979. At that time he showed a left corneal herpes simplex with dendritic stain in the left upper temporal quadrant and stippled stain of the left lower temporal third of the cornea. There was two mm of vascularization at 2:00, 3:00 and 4:30 o'clock; a red, painful left eye and moderately-swollen lids. His vision was 20/35 − 2 in his left eye and 20/15 in the unaffected right eye. The near point of accommodation was 11 cm in the left eye, but 15 cm in the right. He was aware of having had influenza symptoms and some temperature elevation the week prior to his eye symptoms. There were no cells in either anterior chamber. The pupils were rounded, equal, active and consensual. He was examined and found skin reactive to Fluogen at the second dilution level.[3, 4] He got symptomatic eye relief from the titration effort.

Method

We diluted the Fluogen using the technique of Carleton H. Lee, M.D.[3] Doctor Lee studied under H. J. Rinkel, M.D. We injected intradermally 1/100 cc of the Fluogen starting at the second dilution. The skin and general reaction indicated the titer that was correct. This proved to be the second dilution of 1:25. This titer was used in a solution made so the accepted dose was contained in 1/10 cc of normal saline containing .004 per cent phenol. The patient then injected himself with this solution at two- to four-hour intervals as pain recurred. Stoxil ointment was put in the affected eye every four hours. The efficacy of Stoxil in this situation was questionable, but the dire effect of the disease is such that the use of the ointment containing idoxuridine (IDU) was felt to be justified.

He ran out of vaccine at 6 P. M. December 25 and used none until noon of December 26, although the Stoxil was continued. The stain had increased, being widespread in the lower half of the cornea. The left eye was painful and red, and the lids were swollen again. There was increased vascularization at 2:00 and 4:30 o'clock for two mm, but to three mm at the 3:00 o'clock position. These vascular buds were in the anterior layers of the cornea. Cyclogel one-half per cent (cyclopentolate hydrochloride) was instilled as a drop in the left eye, and a disposable cardboard occluder, which left the eye open but excluded light, was applied. He was instructed to use his vaccine, 1/10 cc subcutaneously every two hours for six doses, then every four hours. In 24 hours, control was established again with marked improvement. We were made aware that the symptoms varied with the use of vaccine and were not influenced by Stoxil.

Discussion

Secondary invasive herpes simplex (metaherpes) had been stopped before the entire cornea became involved. How long this status will be maintained remains to be seen. The patient will be guarded against recurrent influenzal infection by weekly shots of his vaccine. The vaccine will be recalibrated about once a month until the weather is again warm. The eye is now quiet and sight has returned to normal.

Summary

Secondary invasive herpes simplex (metaherpes) infection of the cornea is rare, but devastating, and control by any means is noteworthy. Brown has used influenza virus vaccine successfully to control epithelial attacks of herpes simplex, but he has only been 88 per cent effective.[5] We cannot believe that every secondary invasive herpetic simplex lesion is going to yield so well. Use of influenza vaccine can be tried in any herpes simplex infection, superficial or deep. The effectiveness of this method can be judged promptly as the eye experiences diminished pain and quieting with both responses occurring within the hour.

Lee's Preparation of Influenza Vaccine Antigen

To begin the procedure, a .004 per cent phenol solution must be prepared by adding four cc of phenol to 1000 cc of normal saline. The influenza vaccine antigen No. 1 Solution (1:5 dilution) is made by adding 0.5 cc of the concentrate Fluogen to two cc of the .004 per cent phenolated saline. Each succeeding dilution is made by taking 0.5 cc of the previous dilution and adding it to two cc of the phenolated saline solution using the following table to prepare as high a dilution as needed: Concentrate = Fluogen (influenza virus vaccine, trivalent, types A and B); No. 1 Solution = 1:5 dilution; No. 2 = 1:25 dilution; No. 3 Solution = 1:125; et cetera.

Editor's Note: Here are generic drugs and trade names (in parentheses) to which reference is made in this manuscript: influenza virus vaccine, trivalent, types A and B, 1979-80 (Fluogen), idoxuridene in a petrolatum base (Stoxil), and cyclopentolate hydrochloride (Cyclogel).

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Medical Grand Rounds

From the West Virginia University Medical Center

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Mycoplasma Pneumoniae Infections

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Mycoplasma pneumoniae is a common cause of pneumonia in young adults, particularly in close populations. It occurs in endemic and epidemic forms. Although the pathogenesis is not entirely clear, attachment to specific receptors on the epithelial surface appears to be the initial event. Immunologic mechanisms may be responsible in part for the pathogenesis.

Clinical presentation is fairly non-specific, and symptoms usually are disproportionate to physical findings. Manifestations outside the respiratory tract, including hemolytic anemia, are uncommon, but M. pneumoniae also has been isolated from extrapulmonary sites. The diagnosis is suspected clinically and documented by culture, determination of cold agglutinins and other antibodies. M. pneumoniae can be isolated for several days after the patient has been started on therapy.

Treatment is with erythromycin or tetracycline. Prognosis is good and mortality is very rare. The use of both inactivated and live attenuated vaccines is still experimental.

Case Presentation:

This 55-year-old, white female was referred to West Virginia University Medical Center for evaluation and work-up of pneumonia and anemia.

She was well until five weeks prior to admission when she noted the onset of sore throat and cough. She was seen by her physician and received a penicillin injection. She did not improve so she was seen by her physician again, and a chest roentgenogram showed bilateral infiltrates. She was given intramuscular lincomycin, but this was switched to IV cephalothin and then to gentamicin because of lack of improvement. The hemoglobin and hematocrit dropped from values of 15.8 g/dl and 44 per cent, respectively, to 6.4 g/dl and 18.5 per cent eight days later.

On arrival at our hospital, the patient gave no history of having been exposed to anyone with pneumonia recently. She had no known previous illness. She appeared very pale and icteric. Her oral temperature was 38.4°C; blood pressure, 120/60 mm Hg (supine); there was no significant drop on change of posture. Radial pulse was 130 per minute and regular. Fundoscopy revealed flame-shaped hemorrhages on left. Presence of bullae was questioned on the left tympanic membrane. Examination of chest revealed diffuse rales and occasional rhonchi. She had no generalized lymphadenopathy or hepatosplenomegaly.

Laboratory data on admission demonstrated hemoglobin of 5.9 g/dl, hematocrit of 16.8 per cent, erythrocyte count of 1.75 million/mm,^{3} leukocyte count of 19,100/mm^3 with 84 per cent segmented neutrophils, one per cent bands, one per cent myelocytes, 10 per cent lymphocytes, four per cent monocytes and two per cent nucleated erythrocytes. Reticulocyte count was 107,-500. Peripheral smear showed nucleated erythrocytes, polychromasia and metamyelocytes. It was noted that when blood was being taken to the laboratory it would clot quickly, and that the only

way clotting could be avoided was by immersing the tube in warm water. Presence of cold agglutinins was suspected. The titer of cold agglutinins subsequently was reported at 1:640. Mycoplasma complement fixation titer was reported at 1:1064.

Chest roentgenograms demonstrated patchy infiltrates in the right lower lobe as well as the anterior segment of the right upper lobe. Liver function test results showed a total bilirubin of 1.9 mg/dl, direct bilirubin of 0.6, alkaline phosphatase of 126 mμ/ml, LDH of 855 mμ/ml and SGOT of 39 mμ/ml.

Intravenous erythromycin was administered initially, being changed to oral erythromycin on the following day. The patient continued to be febrile for the first six days of hospitalization. Although she was kept warm, her hemoglobin dropped to 4.2 g/dl, and she was transfused with two units of warm, packed erythrocytes. She gradually improved over the following four days with an increase in hemoglobin to 10.4 g/dl.

Renal function stayed normal throughout her hospitalization. She did not develop evidence of hemoglobinuria. She was discharged on erythromycin and folic acid.

Comment:

The patient presented today has *M. pneumoniae* pnumonia and hemolytic anemia. There are some unusual features regarding this patient's presentation. She is older than the usual patient with *M. pneumoniae* pneumonia. She developed cold agglutinin positive, severe hemolytic anemia, which has been well described with *M. pneumoniae* pneumonia but is uncommon. When she presented to our institution, the diagnosis was fairly easy. In a patient with pneumonia, positive cold agglutinins and hemolytic anemia, mycoplasma should be considered an etiologic agent. This patient had been ill for a few weeks prior to admission with hemolytic anemia. This also is characteristic, as I will discuss later. Another fairly typical feature she demonstrated is the lack of response to the antimicrobials that were prescribed — penicillin, lincomycin and aminoglycoside, which are not effective against *M. pneumoniae*.

Mycoplasmas have been known to be pathogens of birds and mammals for a long time. The first mycoplasma identified was responsible for serious respiratory disease of cattle, bovine pleuropneumonia. This agent was cultivated by Nocard and Roux in 1898.[1] Mycoplasma as a cause of human disease has been documented relatively recently as compared to the disease of animals. Historically, it was observed that a significant number of pneumonias were different (atypical) from the usual bacterial pneumonias clinically and radiographically.

Later, in 1943, Peterson, Ham and Finland[2] demonstrated the occurrence of cold agglutinins in a significant percentage of patients with primary atypical pneumonias. In 1944, Eaton and co-workers[3] isolated a filtrable agent from the sputa of patients with atypical pneumonias and injected it into cotton rats and hamsters. The filtrable agent initially was thought to be a virus.

In 1957, Liu[4] demonstrated Eaton agent on the surface of the bronchial epithelium of the chick embryo. Marmion and Goodburn,[5] in 1961, suggested that Eaton agent might be a pleuropneumonia-like organism. In 1962, Chanock, Hayflick and Barile[6] reported the growth of the agent on agar and provided proof that the agent was a mycoplasma. A definite role for *Mycoplasma pneumoniae* in human disease was established by subsequent studies in volunteers.

Agent

Mycoplasmas are classified under the class Mollicutes, order Mycoplasmatales and family Mycoplasmataceae. Mycoplasmas are the smallest, free-living organisms. They lack a cell wall and can reproduce in cell-free medium. On agar, they exhibit a characteristic colonial morphology. The center of the colony is embedded in the agar, giving it a "fried egg" appearance.

Mycoplasmas are bound by a triple-layered membrane, and they all require sterols for growth. Of the seven human species of mycoplasma—*M. pneumoniae, M. salivarium, M. orale 1, 2 and 3, M. fermentans, and M. hominis*—only *M. pneumoniae* has been documented to produce disease in man. *M. salivarium, M. orale* and *M. fermentans* have been isolated from the oropharynx. *M. hominis* and *Ureaplasma urealyticum* (formerly T strain mycoplasma) have been isolated from the genital tract. *M. pneumoniae* is about 10x200 nm in size and is filamentous. It requires yeast extract and serum for growth.

Epidemiology

M. pneumoniae infections occur in many different areas of the world in endemic and epidemic form. Outbreaks occur in close populations, e.g., military, college, family. The percentage of pneumonias caused by *M. pneumoniae* has varied depending on the population studied and the different time periods of study. The frequency was reported as four per cent in a hospitalized population.[7] In a study by Cha-

nock,[8] 38 per cent of pneumonias in Marine recruits in South Carolina from 1959-1964 were caused by mycoplasma. Mogabgab[9] estimated that 4.3 per cent of all pneumonias in airmen were due to this agent. In a community survey[10] and among naval recruits,[11] it has been demonstrated that 20 per cent of pneumonias are caused by mycoplasma.

Mycoplasma infections occur throughout the year, but epidemics have occurred more commonly in summer and fall. Illness caused by *M. pneumoniae* occurs most frequently in school-age children and young adults. Occasionally, the disease may occur in younger children and older patients. The usual incubation period is two to three weeks. Close contact is most likely required for spread. In a study of families for the transmission of *M. pneumoniae*,[12] a school-age child was more likely to be the index case. The families with greater number of infections were more likely to have younger parents and more young children compared to those with smaller numbers of infection. The interval between cases was three weeks.

Spread occurs slowly in families or other close populations, but a high percentage of susceptible persons may eventually become infected. Prolonged carriage of *M. pneumoniae*, even in face of treatment with antimicrobials, also may be important in epidemiology.

Pathogenesis and Pathology

M. pneumoniae has a predilection for the respiratory tract. The exact mechanism by which *M. pneumoniae* induces cell injury is not known. *M. pneumoniae* attaches to the cell surface by means of a specialized tip structure,[13] which may represent a high concentration of binding sites. The binding site in *M. pneumoniae* has been identified as a major membrane protein. Attachment of mycoplasma has been studied by hamster tracheal organ cultures. Attachment was demonstrated to decrease with neuraminidase treatment, formalin fixation of tracheal rings and decreasing the temperature, which decreases ciliary activity. It is the accepted view that mycoplasma attach to sialic acid moieties on the host-cell surface.[14]

The close association of adhering mycoplasma and their host cells may lead to local concentration of toxic metabolites, which may cause cell damage. In organ cultures, ciliostasis is the most pronounced early manifestation of injury. The cilia are later damaged and lost. This is followed by loss of superficial epithelial cells.

The pathogenesis of *M. pneumoniae* pneumonia may be, at least in part, immune-mediated. Infections are usually asymptomatic or mild in young children, but pneumonia is more likely to occur in older children and young adults. Systemic or local antigen antibody or cell-mediated immune reactions may be responsible for damage. Circulating immune complexes have been demonstrated during acute illness[15] and may play a role in local damage or systemic manifestations. The lack of radiologic findings in patients with immunodeficiency syndromes and *M. pneumoniae* infection[16] also suggests that pulmonary infiltrates in immunocompetent individuals may result from an immunologic reaction. Interestingly, however, despite lack of pulmonary infiltrates, these patients had very severe symptoms. Therefore, immune mechanisms may be protective on one hand and damaging on the other.

In one inactivated vaccine study,[17] more severe illness developed upon challenge in vaccinated individuals who did not develop seroconversion. Autoantibodies to different organs appear during mycoplasma infections. The role, if any, that these play in the pathogenesis is not known.

Since illness caused by *M. pneumoniae* usually is self-limited, there is little information on pathology. Interstitial pneumonia and acute bronchiolitis are the usual features. Polymorphonuclear leukocytes, when present, mainly are in the bronchial lumen. Desquamated, epithelial cells also may be present. The cells in the submucosa primarily are lymphocytes, plasma cells and macrophages. Pathology of *M. pneumoniae* has been well-studied in animal models, particularly the hamster. The characteristic lesion here is peribronchial. Bronchial intraluminal and submucosal cells are very similar to those found in humans. *M. pneumoniae* has been identified at the epithelial border using immunofluorescent techniques.

Immunity

Mechanisms of recovery from *M. pneumoniae* infections are not entirely clear. Local accumulation of antibody, particularly IgA, seems to be important in host defenses.[18] This antibody might be associated with inhibition of attachment of *M. pneumoniae* to respiratory epithelium. In a study in human volunteers,[18] those with low levels of IgA in nasal secretions were more likely to develop *M. pneumoniae* disease following challenge as compared to those with high levels of preexisting IgA antibodies. Those who developed respiratory-tract disease also were more likely to develop an increase in IgA in nasal secretions. There was no evidence of correlation between serum antibody and resistance. In a

previous volunteer study, a correlation between preexisting serum antibody and subsequent development of disease was demonstrated.[19] *M. pneumoniae* can be lysed by complement.

In a study in guinea pigs,[20] significant increase in complement components C_1, C_2, C_3 and C_4 was demonstrated in bronchial secretions very soon after infection. The serum antibody titers increased later in the illness. It was felt that complement components may represent an early, non-specific defense mechanism before the specific immune response becomes effective. Phagocytosis and killing of opsonized mycoplasma by polymorphonuclear leukocytes and macrophages[21] also occurs. The duration of immunity to mycoplasma is not known. Second episodes of infection and pneumonia can occur.

Clinical Features

The patient may present with pharyngitis, tracheobronchitis, pneumonia, bullous myringitis or otitis media. Younger children are more likely to have mostly upper-respiratory-tract involvement. The incidence of upper-respiratory-tract complaints has varied in different series. About 20 to 25 per cent of patients with *M. pneumoniae* pneumonia will have upper-respiratory complaints.

Pulmonary symptoms may be exacerbated in patients with chronic obstructive pulmonary disease. The incubation period, as mentioned previously, is two to three weeks. The onset is usually insidious. Most of the symptoms are nonspecific. Initially, there is fever, headache and malaise. This is followed by cough, which is a very prominent symptom. Cough is usually nonproductive but can be productive of mucoid sputum. Purulent sputum and hemoptysis are rare. Patients may complain of sore throat or earache or substernal chest pain.

Physical examination usually reveals a patient who does not appear very ill. Patients with immunodeficiency syndrome and sickle cell anemia[22] have been reported with more severe illness. Pharyngeal injection may be present. Myringitis, occasionally with bullae and hemorrhages, may occur. In a challenge study of volunteers,[23] myringitis developed in 13 of 52 volunteers infected with *M. pneumoniae*. Hemorrhagic bullous myringitis occurred less frequently. In the setting of natural infection, myringitis is not as common. *M. pneumoniae* has been isolated from middle ear fluid. Physical examination of the chest may be unremarkable, but occasional rales or rhonchi may be heard. Rarely, signs of consolidation and pleural effusion may be present.

Extrapulmonary Manifestations

These extrapulmonary manifestations have been reviewed by Murray *et al.*:[24]

Hematologic: The occurrence of clinically-significant hemolytic anemia is uncommon, though subclinical hemolysis is probably more common. It characteristically occurs two to five weeks after the onset of symptoms. By the end of the first week of infection, cold agglutinins occur in approximately 33 to 76 per cent of patients with *M. pneumoniae* pneumonia. Cold agglutinins are IgM antibodies which react with I antigen. The altered antigen may stimulate the synthesis of antibody which reacts with both altered and native I antigen. Another explanation may be that mycoplasma may possess antigen that cross-reacts with erythrocyte I antigen.

The cold agglutinins have a high thermal maximum, are restricted polyclonal, and have a titer of $>1:512$ in patients who develop hemolytic anemia.[25] Cold agglutinins attach to erythrocytes and fix complement at reduced temperatures in extremities. Complement remains on the erythrocyte membrane after dissociation of cold agglutinin at 37°C. The damaged erythrocytes have a shortened survival, and are phagocytosed by the cells of the reticuloendothelial system. The severity of the clinical manfestations is determined by the degree of antibody binding to erythrocytes; this depends on the thermal environment of the patient, the concentration of cold agglutinins and the thermal maximum of the cold agglutinin molecules present.[25]

Patients usually present with anemia, jaundice and indirect hyperbilirubinemia. The patient presented today demonstrated these features. Occasionally, hemoglobinuria, renal failure, Raynaud's phenomena, and acrocyanosis occur.

Other hematologic manifestations include thrombocytopenia and disseminated intravascular coagulation, which are rare.

Dermatologic: Eleven to 33 per cent of patients with *M. pneumoniae* infections in different studies have been reported to have exanthems. Many different types of dermatologic manifestations have been reported in association with *M. pneumoniae* pneumonia. In a review by Cherry and associates,[26] it was noted that dermatologic manifestations are much more common in males than females. The rashes described have been erythematous, macular or papular, papulo-vesicular, urticarial, petechial and morbiliform. Erythema multiforme major and minor have been reported. *M. pneumoniae* has been isolated from bullous lesions.

The most common sites of the rashes have been the extremities and trunk. The rash has been reported to appear during febrile period and usually persists for two weeks or longer. Of the reported patients, two thirds received antimicrobial therapy prior to the appearance of the rash. So, in some patients the rashes are associated with *M. pneumoniae* infection alone. In the others, they may be secondary to antimicrobials or to a combination of *M. pneumoniae* infection and antimicrobials. A mechanism possibly similar to that occurring in infectious mononucleosis might be responsible.

Neurologic: The neurologic syndromes reported in association with *M. pneumoniae* infections include meningitis, meningoencephalitis, transverse myelitis, seizures, Guillain-Barré syndrome, brain stem dysfunction, peripheral and cranial neuropathy, cerebellar ataxia, hemiplegia, coma, psychosis and decerebration.

Neurologic symptoms may occur during or several weeks following the respiratory symptoms. In some cases, patients with nervous system findings may not have preceding respiratory complaints. Cerebrospinal fluids in patients with neurologic syndromes have shown increased or normal protein, normal glucose, zero to several hundred leukocytes with varying numbers of lymphocytes and polymorphonuclear cells. Pathologic findings have included vascular microthrombi, focal cortical neuronal degeneration, edema and perivascular spaces with hemosiderin-containing macrophages and free hemosiderin.

The pathogenesis of the central nervous system disorders is unclear. *M. pneumoniae* has been isolated recently from the brain at autopsy. The pathogenesis has been studied in experimental animals using animal mycoplasma. Central nervous system involvement has been attributed to immunopathologic mechanisms. Autoantibodies to brain tissue have been demonstrated in humans even in the absence of neurologic symptoms. T lymphocytes sensitized to brain antigens also have been postulated to play a role.[27]

Recovery following neurologic involvement usually is slow but is usually complete. Occasionally, residual deficits persist.

Cardiac: Both pericarditis, myocarditis and myopericarditis have been reported. In one retrospective series,[28] pericarditis and myocarditis were present in 8.5 per cent and 1.8 per cent, respectively, of patients with *M. pneumoniae* diagnosed serologically. Eleven of 13 patients presented with preceding upper-respiratory-tract infections, and six with bronchopneumonia. Patients either were afebrile or developed temperatures. Fever appeared to be a reliable indicator of the severity of illness. Long-term evaluation demonstrated that most patients recovered, and two died. *M. pneumoniae* has been isolated from pericardial fluid and left ventricular blood at autopsy.

Musculoskeletal: Myalgia and arthralgia are common, and arthritis also occurs. The joint symptoms usually begin three to eight days after the onset of respiratory symptoms. In the reported cases,[29] joint involvement was migratory and polyarticular in most cases. The larger joints were more frequently involved than the smaller joints. In animal models, chronic joint involvement resembling rheumatoid arthritis can be produced.[30] In humans, no causal association with rheumatoid arthritis has been demonstrated.

Gastrointestinal tract: Non-specific gastrointestinal symptoms of anorexia, nausea, vomiting and diarrhea may occur. Pancreatitis has been reported.[31] Mild elevations of transaminases and alkaline phosphatase may occur.

Renal: Mycoplasma pneumoniae with acute glomerulonephritis was reported in an 11-year-old girl.[32] Mycoplasma antigenic material was demonstrated in the patient's glomeruli.

Diagnosis

Mycoplasma infections should be suspected clinically in children and young adults who present with respiratory symptoms, particularly when symptoms are out of proportion to signs. The diagnosis also should be considered in patients presenting with respiratory complaints and one or more of the features mentioned previously, or in any patient with atypical pneumonia. The diagnosis is confirmed by laboratory tests.

Laboratory: The leukocyte count usually is normal, although marked leukocytosis with shift to the left may occur. In patients with sickle cell disease and *M. pneumoniae* pneumonia, leukocytosis was reported in one study.[22] Leukopenia also may occur occasionally. Cold agglutinins are absent early in the disease. They usually appear during the second or the third week after the onset of symptoms. The titers drop fairly rapidly after reaching the maximum. In most cases, the cold agglutinins can no longer be demonstrated in significant titer by four to six weeks. The height of the cold agglutinin titer is related to the severity of symptoms, the extent of the pulmonary lesion and the duration and the height of fever.[33]

Cold agglutinins are not specific for mycoplasma infections since they may occur in other

viral infections, non-mycoplasma-induced hemolytic anemias and lymphoproliferative disorders. However, the majority of cold agglutinin positive pneumonias with cold agglutinin titers of >1:128 are caused by *M. pneumoniae*. A bedside screening test for cold agglutinins, if positive, indicates a titer of >1:64. Cold agglutinin determination is very helpful but not specific for *M. pneumoniae*.

Other serologic tests for measuring antibodies to mycoplasma are available. Of these, the complement fixation test is most commonly available. A four-fold or greater rise in titer is significant. Some of the other serologic tests include metabolism inhibition and indirect immunofluorescence. Some of these are more difficult to perform and not readily available. *M. pneumoniae* can be cultured from sputum or throat swab. It also has been isolated from other areas—middle ear fluid, cerebrospinal fluid and the brain.

The findings on chest roentgenograms vary. The infiltrates are usually patchy, reticular, interstitial or have mixed interstitial-acinar patterns. Lower-lobe involvement is more common. Occasionally, other lobes may be involved. Lobar involvement is uncommon. Pleural effusions may be present; they are usually small but occasionally large. They are exudative. Gram stain of the sputum shows polymorphonuclear leukocytes with no predominant organism.

Differential Diagnosis

The differential diagnosis of *M. pneumoniae* includes viral infections, Legionnaires' disease, Q fever, psittacosis, tularemia, occasionally tuberculosis and fungal infections. With Q fever, tularemia and psittacosis, epidemiologic history is of help. This diagnosis can be confirmed by various serologic tests. For primary tuberculosis, history of contact, smears and cultures of sputum would be helpful to differentiate from an infiltrate caused by *M. pneumoniae*. Hilar adenopathy is a feature of primary tuberculosis whereas it would be extremely unusual in *M. pneumoniae* pneumonia.

Viral pneumonia may be difficult to distinguish clinically from *M. pneumoniae* pneumonia. Cold agglutinins can be positive in viral pneumonia but usually in low titer. High-titer cold agglutinins and specific antibody tests for *M. pneumoniae* would be helpful.

Patients with Legionnaires' disease generally are older compared to those with *M. pneumoniae* pneumonia. Helms and co-workers,[34] comparing features of Legionnaires' disease and *M. pneumoniae* pneumonia, reported that patients with Legionnaires' disease were more likely to present with unexplained encephalopathy, hematuria and elevation of serum glutamic oxaloacetic transferase than those with mycoplasma pneumonia. In the absence of extrapulmonary symptoms and signs it may be difficult to distinguish clinically between *M. pneumoniae* pneumonia and Legionnaires' disease. Generally, the latter tends to be a more severe disease than *M. pneumoniae* pneumonia.

Treatment

Erythromycin or tetracycline are used for the treatment of *M. pneumoniae* pneumonia. Both forms of therapy have been associated with clinical improvement. In a study by Shames and colleagues,[35] both tetracycline and erythromycin reduced the length of illness as measured by different parameters—duration of fever, chest roentgenographic abnormalities and hospital stay. Erythromycin is about 50 times more active *in vitro* than tetracycline. *In vivo*, there doesn't seem to be a major difference between erythromycin and tetracycline in the treatment of *M. pneumoniae* pneumonia. The choice of one antimicrobial over the other may be dictated by situation other than just the presence of *M. pneumoniae* pneumonia, e.g., treatment of a child or treatment of patient in whom Legionnaires' disease appears to be the major differential diagnosis. In both these situations erythromycin would be indicated. In patients in whom psittacosis or Q fever are major differentials, tetracycline would be indicated.

The usual adult dose of erythromycin or tetracycline is 250 to 500 mg every six hours. The usual duration of treatment is a week to 10 days. Longer courses of two to three weeks have been proposed, since, following short courses, incomplete relief of cough and occasional clinical relapses have been observed.

The effect of therapy on manifestations outside the respiratory tract has not been determined. In previous studies, it has been shown that *M. pneumoniae* is not eradicated from the respiratory tract for several weeks in the presence of antimicrobial therapy. It has been postulated that the organisms may be decreased in number. Persistence of organisms cannot be explained by insufficient antimicrobial concentrations or development of resistance.

Other supportive therapy is used as required. Transfusion of warmed erythrocyctes or adult i erythrocytes has been employed in patients with hemolytic anemia. The role of steroids in hemolytic anemia has not been determined.

Prognosis and Prevention

The mortality is very low. Morbidity, however, is significant in terms of symptoms. It probably also has an impact in terms of days lost from school or work.

The vaccines are experimental. Different volunteer studies have been carried out for determining the safety and efficacy of inactivated *M. pneumoniae* vaccines. The rates of reduction of pneumonia have been 44 to 66 per cent in different studies. An earlier study[17] had demonstrated that more severe illness occurred following challenge with *M. pneumoniae* in vaccinees who did not develop serum antibody after vaccination. It was suggested that sensitization had occurred in these volunteers, who did not show evidence of seroconversion. This type of problem of more severe illness was not demonstrated in subsequent studies.

Since the efficacy of inactivated vaccines has not been very high, attempts at developing other types of vaccines have been made. Live attenuated vaccines have been tested in animal models and human volunteers. Temperature-sensitive mutants which multiply in the cooler temperatures of the upper respiratory tract, but not at 37°C in the lower respiratory tract, have been produced and studied in human volunteers.[36] The mutant remained avirulent for the volunteers, but was associated with resistance to subsequent challenge.

Prevention using antimicrobial prophylaxis was studied in family members. Tetracycline was administered for 10 days. The illness was reduced significantly, but there was no difference in infection rates between those receiving treatment compared to placebo.

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A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and a reasonable number of references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

A Continuing Medical Education Event!

The 14th Mid-Winter Clinical Conference

Holiday Inn Charleston House

600 Kanawha Boulevard, East, Charleston, W. Va.

January 23-25, 1981

WEST VIRGINIA STATE MEDICAL ASSOCIATION
WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE
MARSHALL UNIVERSITY SCHOOL OF MEDICINE

WATCH THE JOURNAL FOR PROGRAM DETAILS

THE PROGRAM CO-CHAIRMEN again are Ralph H. Nestmann, M. D., and Joseph T. Skaggs, M. D., both of Charleston. Also on the Program Committee are William O. McMillan, Jr., M. D., of Charleston, Maurice A. Mufson, M. D., Huntington; Robert L. Smith, M. D., Morgantown, and C. Carl Tully, M. D., South Charleston.

THE REGISTRATION FEE of $40 for the entire conference will be charged all registrants except nurses, medical students, interns and residents. Advance registration is requested, and please make checks payable to "WEST VIRGINIA STATE MEDICAL ASSOCIATION."

ACCREDITATION: Attendance will be acceptable for 13 hours of Category 1 credit toward the Physician's Recognition Award of the American Medical Association; and the program also is acceptable for 13 Prescribed hours by the American Academy of Family Physicians.

OVERNIGHT ACCOMMODATIONS: Physicians should communicate directly with the reservation manager of the hotel or motor inn of their choice, with the conference headquarters hotel setting aside rooms for registrants.

FOR ADVANCE REGISTRATION, please complete the form below and mail to: WEST VIRGINIA STATE MEDICAL ASSOCIATION, P. O. BOX 1031, CHARLESTON, W. VA. 25324.

Please register me for the 14th Mid-Winter Clinical Conference in Charleston, W. Va., January 23-25, 1981. My $40 registration fee is (is not) enclosed.

Name (please print)	*Specialty*
Address	*City*

A message from . . .

The President

DECISION TIME

THIS month is the time to decide. Shall I continue paying my dues to the West Virginia and American Medical Associations? The decision this year becomes one of more concern because of the increase in state dues.

This presidential note is being written after just completing five days of activities with my fellow officers of the State Medical Association at American Medical Association House of Delegates meetings. Here, West Virginia's resolution concerning accreditation criteria used by the JCAH was received and put into position for action. This, alone, demonstrates the voice we have, for it was only five months ago that this was an idea presented by an Eastern Panhandle physician at a meeting of his local society.

During the AMA meeting, the top leadership departed at the request of President-elect Reagan to confer on medical affairs. I understand this is the first time in history, we, the Medical Association, are being consulted in planning at such an early stage of government organization. Our role usually is adversary after some "crackpots" dream up unreasonable schemes. It bodes well for AMA's efforts.

At the interim meeting of the AMA House, many issues were addressed. A good number of them will affect your personal life. You therefore should have knowledge of and participate in their development.

It would be impossible even to tabulate the number of items covered, but nearly 100 resolutions, along with scientific and other reports, were presented, discussed in reference committees and further discussed on the floor. All were subject to full debate by any AMA member so desiring in committee; and further opportunity for debate and amendment was available on the floor. This represented true democracy at its best.

The issues dealt with residency accreditation, foreign medical school accreditation, certificate of need, drug labeling, alcohol and tobacco abuse, the Federal Trade Commission, repeal of health planning laws, cost containment, Medicare/Medicaid reimbursement, insurance payments for office care, and many other items.

In view of Medicine's new role in government planning: a demonstration of your personal ability to participate in AMA decisions, and the tremendous number of problems that require our interest and involvement, I emphasize that — for the AMA to be an effective voice for physicians — it needs you. Efforts made, the knowledge disseminated and the exchange of relationships all are for your personal and collective benefits, and for the good of your patients.

Make your decision an affirmative one, and get into the role of participation. Raise your issues with submitted resolutions, and let your leadership address and implement them.

L. Walter Fix, M. D., *President*

The West Virginia Medical Journal

Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

In the news section of this issue of *The Journal* is a story of recent Council and Committee on Legislation action looking toward the convening of another session of the West Virginia Legislature this month.

Again, there is concerted effort on the part of the Medical Association to put together what amounts to a program of its own — and constructive positions on other bills certain, or expected, to appear.

Also in the works is a broadened effort on the part of the Association staff to help, as one veteran physician member has put it, "get more doctors in the ball game." Specifically, this step will involve further development of a key physician network around the state to provide ongoing, back-home contact with legislators.

LET'S EMPHASIZE THE POSITIVE

The Association's success in obtaining enactment last year of an ambitious program proved what can be done if it can get into an effective, constructive and positive approach to key issues and problems of the day — and away from a position of trying to play 60 days of defense.

Legislators no longer can say, as they very openly have in the past, that "here comes the West Virginia State Medical Association, against everything again." Attendance at a November 15 meeting of the Committee on Legislation was heartening. Those present reflected an encouraging "handle" on issues. We're confident that resource will continue to grow. And the beneficiaries of positive legislative action in the field of medical and health care will be the people of this state.

The Association, along with the AMA and its Washington office, likewise can count on some interesting new challenges in Congress. The West Virginia delegation in the House will have two interesting new faces, both from the Republican ranks. The change in the Senate majority from Democrat to Republican clearly will bring some shifting of emphasis. There are those that feel—perhaps primarily because of conservative fiscal policies—that the early period of the Reagan Administration might not be all that good for health programs. We'll have to see just what develops.

Sometimes, an individual or organization can be labeled as just plain mean. On other occasions, one tends to be cantankerous and concerned. The latter seems to fit this Association's attitude, much of the time, with respect to health planning as represented by the Health Systems Agency.

While we share the honest doubts of many as to whether the current planning machinery really will work, we have tried to stay reasonably informed as to HSA and related activities. We have attended meetings; encouraged physicians to join in the process through HSA membership and other means; and we've offered our views, comments, criticism and reaction on, of and to more pieces of paper than we could ever hope to count.

CANTANKEROUS AND CONCERNED

In this game of bureaucratic chess, you lose some and win some — and sometimes you feel you were "rained out." To the credit of HSA, and other units of the planning mechanism, we have been given a fair shake in an opportunity to get our points across. We have tried to be reasonable, and to offer our thoughts on a basis of logic and, we hope, sound practical sense. Our goal, like that of every thinking individual, is improved availability of quality health care.

Against this somewhat wordy background, we basically agree with what we understand to be a major foundation stone of federal health planning legislation of 1974 and 1979. We have understood the congressional philosophy to be that health planning should be a coordinated community effort, involving the banker, the store owner, the doctor, the coal miner, the school teacher, the lawyer, the housewife, etc.

We know that at some levels of the complicated planning process, legislation calls for consumer majorities. That's the case with the membership of HSA boards of directors. But we don't think Congress ever intended any such restriction on the *membership* of an HSA, and because of that we've been fussing a bit about an amendment to the West Virginia HSA's bylaws.

That amendment, adopted by the HSA Board at a September meeting, leaves unchanged old language in effect making the HSA membership open — as we feel it should be — to all West Virginia residents 18 and older. But new language then blunts the "you-all come" invitation by saying that "applications from providers of health care who are qualified for membership may not be processed until it is assured that a majority of consumer members will prevail."

Again in fairness to the HSA Board, it's taking another look at this language. This Association strongly urged that reconsideration. The Board, we feel, acted prematurely on the basis of a federal policy notice that was binding on no one, and might or might not become a part of federal regulations some months from now. In the eyes of the West Virginia Hospital Association, the amendment is "flagrantly discriminatory," without a basis in code or regulation, and inconsistent with the spirit and philosophy of the HSA structure and mission.

Our goal has been to watch closely just what interpretation the federal bureaucracy puts on federal planning legislation requiring that the HSA governing body selection process include broad participation by residents of the area served. We have trouble with one federal interpretation that "broad participation" requires representation by a consumer majority at all "meaningful" stages of the election process. We don't think Congress ever intended an unfair restriction on the HSA *membership*.

WITHOUT WORDS

Without words. Speechless. Inarticulate. His death as his life leaves us feeling thus.

Michael J. Halberstam, M. D., Editor of *Modern Medicine*, died in a Washington, D.C., emergency room on December 5, 1980, of gunshot wounds received in a robbery of his home. After the shooting he had chased and disabled with his automobile his assailant before driving himself to the emergency room, where he died.

Without question, Michael Halberstam was the finest English prose stylist among physician writers in recent time. His regular columns for *Modern Medicine* frequently had the effect of making other medical journalists feel like clumsy and inarticulate clods as we pawed with hooved fingers at sticky keyboards while he choreographed his soaring thoughts to the rhythm of his dancing fingers.

Mike had a way with words that few have been given to have. Along with that gift, he had a clarity of thought and logic which raised the level of his facility with words above the exercise in cleverness we so commonly see and abhor in other writers.

It was his humanity, however, which provided the ambient backdrop for his prose. He had a feeling for people, for their pain and discomfort, and he had a tolerance and a sense of humor about their inevitable human failings.

The fearlessness which, despite his mortal wounds, led him to follow and disable his murderer was simply characteristic of his total approach to life. It takes an extraordinary degree of courage to expose the intimacies of one's thoughts and feelings on a printed page. Mike had an inexhaustible supply of such courage. That it led to his death is cause for regret, but that he possessed it and used it in his writing is cause for gratitude among us, his readers.

Grief is short but memory is long. Michael J. Halberstam will be remembered by all of us who had the good fortune to have known him.

MEMBER SERVICE

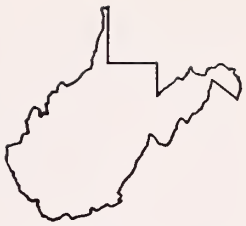
For reasons set forth in a series of mailings to individual members, the State Medical Association's Council unanimously decided, at a special November 30 meeting, to change carriers in the Association-endorsed professional liability (malpractice) insurance program.

The decision was not an easy one, and it understandably raised a number of questions among physicians. To reiterate an answer to one of those, the carrier for the Association-endorsed program, as of January 1, 1981, is Continental National American (CNA).

It's also true that, for the first time in almost a decade, there is a highly competitive malpractice insurance market in West Virginia. The Medical Association's Ad Hoc Committee on Professional Liability Insurance, charged by the Council in September of 1979 with seeking possible alternatives to the Aetna program, can take considerable credit for this development.

An endorsed program for the membership is a solid part of the Medical Association's service.

GENERAL NEWS



Medical Institute To Host Conference Session

A program presented by the West Virginia Medical Institute, Inc., will constitute the physicians' session for the 14th Mid-Winter Clinical Conference Friday, January 23, at 8 P. M.

The conference, which will begin at 2 P. M. Friday, will be held at the Holiday Inn Charleston House in Charleston. It will conclude at noon on Sunday, January 25.

L. Blair Thrush, M. D.

The annual continuing medical education event is sponsored by the West Virginia State Medical Association and the West Virginia University and Marshall University Schools of Medicine.

Scientific sessions will be held Friday afternoon, Saturday morning, Saturday afternoon and Sunday morning.

"West Virginia Medical Institute—Where It Has Been, Where It Is, and Where It's Going" is the topic of the Friday evening physicians' session to be presented by the Medical Institute. It will be held in the Dawson Room. Presiding will be Harry S. Weeks, Jr., M. D., of Wheeling, President, assisted by board members and committee chairmen.

John C. Linton, Ph. D.

Jacob J. Spies

In conjunction with the conference, the Institute also will hold its annual membership meeting on Saturday at 12:30 P. M. in the Hutchinson Room.

The opening scientific session Friday afternoon, in the Hutchinson Room, will include papers on fiberoptics and microsurgery.

The location of the conference general sessions at the Charleston House has been changed from the Wertz Ballroom, the site in recent years, to the newer and larger Hutchinson Room. Scientific exhibits for the conference will be located in the adjoining Copenhaver Room.

Topics of the other scientific sessions will be: "Drugs Today," Saturday morning; "Current Controversies in Medicine," Saturday afternoon, and "What You May Be Doing Next Year!!!" (a panel discussion on Individual Practice Associations and Health Maintenance Organizations), Sunday morning.

A public session on "What's New in Allergy" will be held concurrently with the physicians' session Friday evening beginning at 8 o'clock in the Hutchinson Room.

Public Session Speakers

The speakers for the public session will be Drs. L. Blair Thrush, Morgantown, WVU Assistant Professor of Medicine and Chief, Section of Allergy; Chandra M. Kumar, Clinical Professor of Medicine, Department of Pediatrics, WVU Charleston Division, and Lewis H. McConnell, also of Charleston, Clinical Assistant Professor of Medicine, WVU Charleston Division. Doctor Thrush also will speak to physicians on "Drug Allergy" Saturday morning.

Moderating the public session will be Dr. Joseph T. Skaggs, Charleston allergist, Co-Chairman of the Program Committee, and Clinical Professor of Medicine, WVU Charleston Division.

The Saturday conference schedule, in addition to the two general sessions, will include a cash bar and hors d'oeuvres at 6:30 P. M. in the Dawson Room.

Scheduled in conjunction with the conference this year is a West Virginia Medical Political Action Committee (WESPAC) Dinner at 7:30 P. M.

in the Andrews Room. Speakers will be Congressmen Cleveland K. Benedict (R., 2nd District) and David M. (Mick) Staton (R., 3rd District).

Also scheduled Saturday is a noon meeting of the West Virginia State Society of Anesthesiologists in the River Terrace Room.

The speakers and topics for the scientific sessions will be:

Friday Afternoon: "Endoscopic Retrograde Cholangio Pancreatography (ERCP)"—Duane D. Webb, M. D., MU Assistant Professor of Medicine and Chief, Section of Gastroenterology; "Indications for Colonoscopy" — James W. Manier, M. D., WVU Professor of Medicine and Chief, Section of Gastroenterology, and "Overview of Microsurgery," — David A. Kappel, M. D., Wheeling plastic surgeon and Clinical Associate Professor of Surgery, Wheeling Division, WVU-Ohio Valley Medical Center, Inc.

Saturday Morning: "Drug Interactions" — Carl J. Malanga, Ph. D., Morgantown, WVU Professor of Biopharmacy, School of Pharmacy; "Antibiotic Update (Aminoglycosides)"—Patrick A. Robinson, M. D., Assistant Professor of Medicine and Head, Infectious Disease Division, Department of Medicine, WVU Charleston Division; "Antibiotic Update (Cephalosporins)"—William C. Graham, M. D., MU Assistant Professor of Medicine, Department of Medicine, Section of Infectious Diseases, and "Drug Allergy"—L. Blair Thrush, M. D. (as noted).

Saturday Afternoon: "Treatment for Obesity (Behavioral Modification)" — John C. Linton, Ph. D., Associate Professor and Chief Psychologist, Department of Behavioral Medicine and Psychiatry, WVU Charleston Division; "Treatment for Obesity (Surgical Treatment)"—Mohammed M. Boustany, M. D., Clinical Assistant Professor of Surgery, WVU Charleston Division; and "TIA: Is Surgery Indicated?"—G. Robert Nugent, M. D. (Pro), Morgantown, WVU Professor of Surgery and Chairman, Department of Neurosurgery, and Arthur L. Poffenbarger, M. D. (Con), Clinical Professor of Neurology, WVU Charleston Division.

Sunday Morning: (Panel Discussion on Individual Practice Associations and Health Maintenance Organizations)—Jacob J. Spies, Boston, Director of Health Systems, Center for Industry and Health Care, Boston University; James G. Stumpfel, Wheeling, Executive Director, The Health Plan of the Upper Ohio Valley, Inc. (HealthPlan); Mrs. Carol J. Miller, Beckley, Executive Director, Healthwise; John F. Otto, M. D., Huntington, Member, Board of Directors, Valley Health Foundation, HMO Study; Frederick M. Cooley, M. D., Charleston, Medical Advisor, Charleston HMO, and Charles G. Brown, J. D., Charleston, Deputy Attorney General and Director, Antitrust Division, West Virginia Attorney General's Office.

Interests in Asthma

Doctor Thrush is certified by the American Board of Internal Medicine and the American Board of Allergy and Immunology. His clinical and research interests are in asthma, particularly the evaluation of beta 2 adrenergic agents, and the use of antigen and mecholyl challenge in the work-up of asthma.

Born in Philadelphia, he was graduated from Washington Irving High School in Clarksburg and received both his undergraduate and M. D. (1970) degrees from WVU.

He completed an internship and residency at the University of Wisconsin Hospitals, and a fellowship in allergy-immunology at Walter Reed Army Medical Center.

Doctor Linton also serves as Adjunct Associate Professor in the WVU Department of Psychology, Morgantown, and in the Department of Psychological Services, West Virginia College of Graduate Studies, Institute; Associate Staff Member, Department of Neurological Science, Charleston Area Medical Center; and Coordinator of Psychological Services, Spinal Cord Injury Service, CAMC.

He has been on the WVU Staff since 1973.

A native of Haverford, Pennsylvania, Doctor Linton received an M. A. degree in psychology and a Ph. D. degree in clinical psychology from Kent State University.

As Director of Health Systems, Center for Industry and Health Care at Boston University, Spies handles the Center's HMO consultation and support program and also fills a liaison role with insurance carriers and corporations. Holding his present position since September, 1979, he previously was Vice President for Health Care Systems at Employers Insurance of Wausau in Wisconsin.

HEW Advisory Board

Spies, who holds a B. S. degree in insurance from the University of Wisconsin, has served on the HMO Advisory Board to the former U. S. Department of Health, Education and Welfare.

Presiding at the Friday afternoon session will be Dr. Robert W. Coon, Vice President for Health Sciences and Dean, MU School of Medicine; Saturday morning, Donald S. Robinson,

M. D., Chairman, Department of Pharmacology, and Professor of Pharmacology and Medicine, MU; Saturday afternoon, Charles E. Andrews, M. D., Vice President for Health Sciences, and Professor of Medicine, WVU; and Sunday morning, Don L. Arnwine, President, Charleston Area Medical Center, and Clinical Associate Professor, WVU Department of Community Medicine.

The program meets the criteria for 13 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association, and also is acceptable for 13 Prescribed hours by the American Academy of Family Physicians.

A registration fee of $40 will be charged all registrants except nurses, medical students, interns and residents. For advance registration, make checks payable to West Virginia State Medical Association, and mail to the Association at P. O. Box 1031, Charleston 25324.

Exhibitors scheduled to date include Allergy Rehabilitation Foundation/Camp Bronco Junction; McDonough Caperton Shepherd Association Group, Inc.; Read-More Publications, Inc.; West Virginia Affiliate, American Diabetes Association; West Virginia Lung Association, Inc.; American Cancer Society, West Virginia Division, Inc.; J. B. Lippincott Company, and Little-Brown Publishing Company.

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Basic Histology, 3rd Edition, by Luis C. Junqueira, M. D.; and Jose Carneiro, M. D. 504 pages. Price $15.50. Lange Medical Publications, Los Altos, California 94022. 1980.

Handbook of Poisoning: Prevention, Diagnosis and Treatment, by Robert H. Dreisbach, M. D., Ph. D. 578 pages. Price $9. Lange Medical Publications, Los Altos, California 94072. 1980.

Current Obstetric and Gynecologic Diagnosis and Treatment, 3rd Edition, by Ralph C. Benson, M. D. 1001 pages. Price $21. Lange Medical Publications, Los Altos, California 94022. 1980.

Survey, Core Samples Approved For New Headquarters

West Virginia State Medical Association Properties, Inc., a non-profit subsidiary corporation established consistent with Council and House of Delegates action to work toward construction of a headquarters building for the State Medical Association, has completed its organizational work.

At a meeting of its initial Board in Charleston on November 14, the corporation adopted bylaws and added George A. Curry, M. D., Morgantown, and David F. Bell, Jr., M. D., Bluefield, as Board members.

At a subsequent meeting in Charleston, November 30, the Board elected L. Walter Fix, M. D., of Martinsburg, President; Sherman E. Hatfield, M. D., Charleston, Vice President, and John T. Chambers, M. D., Charleston, Secretary-Treasurer. Other Board members are Stephen D. Ward, M. D., of Wheeling, and Worthy W. McKinney, M. D., Beckley.

Also at its November 30 meeting, the Board authorized steps toward a topographical survey of its property it owns in the Kanawha City section of Charleston; and core samples of the site as necessary preliminaries in construction plans.

The Board next must develop detailed plans for financing the building project.

New Medical Society Forms In Jackson, Roane

The new Western Medical Society of West Virginia, with an initial membership of some 19 Jackson and Roane County physicians, has completed its organization and is "in business" as the 29th component of the West Virginia State Medical Association.

The society, which plans to meet bimonthly with meeting sites rotated between Jackson and Roane, has elected Aaron D. Cottle, M. D., of Spencer as its President; James T. Hughes of Ripley, Vice President, and A. H. Morad, M. D., Ripley, Secretary-Treasurer.

Adoption of a constitution and bylaws was accomplished at a November 11 meeting at the Roane County Gun Club near Spencer, and that cleared the way for issuance of a charter to the society by the West Virginia State Medical Association. That step was in accordance with House of Delegates action during the Association's Annual Meeting in White Sulphur Springs in August.

Committee, Council Approve Legislative Program

Some technical changes in the 1980 Medical Practice Act to clarify the Board of Medicine's authority in disciplinary and other proceedings will be among legislation supported by the West Virginia State Medical Association in 1981.

Action first by the Committee on Legislation on November 15 and endorsed by the Council on November 16 provided some clear directives for positive, constructive efforts during the new state legislative session to begin January 14.

The Association also will support bills calling for mandatory use of automobile child restraint equipment; tort reform as related to medical malpractice litigation; economic impact analyses of rules and regulations proposed under the State Administrative Procedures Act; regulation of smoking in hospitals and other health care facilities; facilitation of absentee voting for inpatients, and establishment of domestic violence centers.

The Committee and Council voted opposition to bills which would effect changes in the State Certificate of Need law beyond federally-set minimum requirements; set up a new "umbrella," or "super" board over existing professional licensing agencies; propose cost containment steps which would adversely affect or threaten quality of care; attempt through anti-trust mechanisms to regulate the composition of hospital governing boards and medical staff privileges; legalize the manufacture and distribution of laetrile within West Virginia; expand exemptions under the mandatory school immunization program, and attempt to regulate diagnostic testing at the expense of quality medical care.

Council Approves '81 Budget, Takes Other Actions

In addition to dealing with legislative matters, covered elsewhere in this news section, the Medical Association Council took the following actions at its regular fall meeting on November 16:

—Approved an Association operating budget (exclusive of the Medical Scholarship Program) of $433,351 for fiscal and calendar 1981.

—Elected Thomas J. Holbrook, M. D., of Huntington to a new seven-year term on the Publication Committee to run through December 31, 1987.

—Elected or re-elected, as nucleus members of the West Virginia Medical Political Action Committee (WESPAC) Board, Stephen D. Ward, M. D., of Wheeling, First Congressional District; N. B. Groves, M. D., Martinsburg, Second District; Joseph T. Skaggs, M. D., Charleston, Third District; Frank J. Holroyd, M. D., Princeton, Fourth District; and Carl R. Adkins, M. D., Fayetteville, and Robert F. Bible, Charleston, Staff Counsel, as ex officio members representing the Council and the Medical Association's Headquarters Staff, respectively.

—Authorized appointment of ad hoc audit and professional evaluation (insurability) committees.

—Elected as honorary members, after appropriate component society action, Dorsey Ketchum, M. D., Huntington (Cabell County Medical Society); W. P. Bittinger, M. D., Oak Hill (Fayette); John B. Haley, M. D., Charleston (Kanawha), and Hugh S. Edwards, M. D., Beckley (Raleigh).

—Approved, at the request of State Workmen's Compensation Commissioner Gretchen Lewis, assignment to an appropriate Medical Association Committee of responsibility for working with the Commissioner in the general areas of reimbursement and Compensation Fund policy.

—Approved transfer of a $9,300 balance in a property acquisition fund established through a special assessment of Association members to West Virginia State Medical Association Properties, Inc., for continued preliminary work toward construction of an Association Headquarters Building.

Renewal Of State Allergy Society Sought

Those physicians interested in redeveloping the West Virginia Allergy Society are urged by M. D. Reiter, M. D., of Wheeling to get in touch with him at 713 Central Union Building in Wheeling 26003, or with L. Blair Thrush, M. D., Assistant Professor of Medicine, West Virginia University Medical Center, Morgantown 26506.

Doctor Reiter also said that physicians interested in serving as representatives to a legislative roundup to be sponsored by the Joint Council of Allergy Immunology at the Washington, D. C., Hyatt February 12-13 should contact him.

Former SUNY Professor MU Pathology Head

Dr. Stebbins B. Chandor, formerly with the State University of New York at Stony Brook, has assumed the post of Pathology Department Chairman at Marshall University's School of Medicine, Dean Robert W. Coon, M. D., announced.

"We are pleased to welcome Doctor Chandor and his family to Marshall and Huntington," Doctor Coon said. "He has an impressive background in teaching, administration and research, and will be a valuable asset to our faculty."

Doctor Chandor, who held the rank of Associate Professor of Pathology at SUNY-Stony Brook, also taught at Cornell University Medical College and the University of Southern California Medical School.

At USC he held a variety of committee posts with the California Society of Pathologists and within the university. His other responsibilities at SUNY included serving the Northport Veterans Administration Medical Center as Clinical Pathology Head. Associate Director of the Electron Microscopy Service and as Pathology Representative to the Eastern Cooperative Oncology Group.

The Boston native earned his B.A. degree in biology from Princeton University and his M. D. degree from Cornell University. He took residencies in medicine and pathology at New York's Bellevue Hospital, Seton Hall Medical Center in Jersey City, New Jersey, and Stanford Medical Center, Palo Alto, California, VA Medical Center.

Certified by the American Board of Pathology in 1966, he has held a National Polio Foundation Fellowship in rehabilitation medicine at the Kessler Institute, Orange, New Jersey, and has been a research associate at the Kuakini Medical Research Foundation, Honolulu. His research areas include immunopathology.

A member of several national professional organizations including the College of American Pathologists and American Federation for Clinical Research. Doctor Chandor is the author or co-author of more than 30 articles.

NIH Respiratory Disease Book Available

The National Heart, Lung, and Blood Institute's Division of Lung Diseases announces the availability of a new publication, *Task Force Report on Epidemiology of Respiratory Diseases*, NIH Publication No. 80-2019. By drawing on a broad spectrum of opinion, the Division, with the counsel of the Pulmonary Diseases Advisory Committee, sponsors programs addressed to problems requiring further investigation because of their importance to public health.

Single, free copies of this 244-page publication may be obtained by sending a postcard to: Administrative Officer, Division of Lung Diseases, National Heart, Lung, and Blood Institute: National Institutes of Health, Westwood Building, Room 6A16, Bethesda, Maryland 20205.

U. S. Infant Death Rate Lowest In History

The infant death rate currently is the lowest in U. S. history, according to a story in the December issue of *Pediatrics*, the monthly scientific journal published by the American Academy of Pediatrics.

The provisional figure of 12.8 deaths per 1,000 live births recorded for the 12 months ending in June, 1980, shows a continuing downward trend for infant mortality. The 1979 rate was 13.0 infant deaths per 1,000 live births, and the 1978 rate was 13.8. By comparison, the infant mortality rate in 1930—the year in which the Academy was founded—was 64.6 deaths per 1,000 live births.

In an article by Myron E. Wegman, M. D., of the School of Public Health of the University of Michigan, the declining infant death rate for 1979 as compared to 1978 is attributed in part to the reduction in deaths caused by birth trauma and hypoxia, although most causes of infant death saw a general decline.

When comparing current statistics with data on infant death in 1930, Doctor Wegman found that striking declines have occurred in infant deaths from diarrheal diseases, infectious diseases, and pneumonia.

Doctor Wegman reported that the estimated highest infant mortality rate by state of residence occurred in Mississippi (17.8 per 1,000 live births) and in the District of Columbia (19.3); the lowest occurred in Maine and New Hampshire (each with 10.4). West Virginia was at 13.6.

On an international level, the U. S. ranked 16th lowest among 25 nations with populations of two million or more reporting data for 1978—the latest year for which complete data are available.

Marshall Receives Cancer Society Grant

The Marshall University School of Medicine has received a $142,312 grant from the American Cancer Society to support a cancer research program of Dr. Helene Z. Hill, Associate Professor of Biochemistry, Dean Robert W. Coon, M. D., announced.

According to Doctor Hill, her project, "The Role of DNA Repair in the Therapeutic Responses of Melanoma," is based on the premise that it is necessary to understand the fundamental characteristics of cancer cells if better treatment strategies are to be designed.

Her research, she said, is focusing on two questions: Do tumor cells increase their ability to repair DNA, and does this affect their growth and response to therapy?

"We have some evidence that cancer cells may have an increased repair capability which results in errors in the DNA. This misrepair factor may be an important element in cancer," she noted.

JCAH Physician Surveyor Positions Open

The Joint Commission on Accreditation of Hospitals desires to employ physician surveyors who are interested in helping hospitals throughout the country provide the highest possible level of health care services through education, evaluation and consultation.

Qualifications for the JCAH physican survey team member include current medical licensure; extensive clinical and patient care management experience; at least 10 years of service on a hospital medical staff; strong oral and written communications skills, and excellent physical health.

Interested candidates are invited to call for additional information (312/642-6061, ext. 333) or send their resume to Janet L. Heckman, Joint Commission on Accreditation of Hospitals, 875 North Michigan Avenue, Chicago, Illinois 60611.

Respiratory Therapy

A program on "Respiratory Therapy" will be held on January 8 at the Fayette Clinic at Lochgelly, near Oak Hill.

The instructor will be William Gary, RRT. Physicians are invited to attend the 7:30 P. M. program.

Medical Meetings

Jan. 14-16—Am. Diabetes Assn., Phoenix, Ariz.

Jan. 23-25—14th Mid-Winter Clinical Conference, Charleston.

Jan. 24—22nd. National Conference on Medical Aspects of Sports, Atlanta.

Jan. 24-26 — AMA Winter Scientific Meeting, Atlanta.

Jan. 28-31—2nd Mid Winter Cardiovascular Symposium (Am. Heart Assn., WV Affiliate; WVU, CAMC), Snowshoe Ski Resort, Slatyfork.

Feb. 1-4—Am. Hospital Assn., Washington, D. C.

Feb. 11-14—Am. College of Nuclear Physicians, New Orleans.

Feb. 15-19—Am. College of Psychiatrists, Tucson, Ariz.

Feb. 22-25—Southeastern Surgical Congress, New Orleans.

March 7-11—Am. Academy of Allergy, San Francisco.

March 8-12—Society of Head & Neck Surgeons; and Am. Society for Head & Neck Surgery, Phoenix, Ariz.

March 23-25—Am. Society of Abdominal Surgeons, Tampa, Fla.

March 23-27—Am. Roentgen Ray Society, San Francisco.

April 4—WV Branch #41, Am. Med. Woman's Assn., Huntington.

April 6-9—Am. College of Physicians, Kansas City, Mo.

April 8-11—Tenn. Med. Assn., Knoxville.

April 10-12—WV AAFP Scientific Assembly, Charleston.

April 15-16—WV Chap., Am. Academy of Pediatrics, Huntington.

April 22-30—Am. College of Obstetricians & Gynecologists, Las Vegas.

April 26-29—WV Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 30-May 2—WV Chapter, Am. College of Surgeons, White Sulphur Springs.

April 30-May 2—Am. Society of Clinical Oncology, Washington, D. C.

May 10-13—Am. Thoracic Society, Detroit.

May 10-13—Am. Lung Assn., Detroit.

May 10-14—Am. Urological Assn., Boston.

May 16-20—Ohio State Med. Assn., Cleveland.

June 5-6—WV State Society of Anesthesiologists, Morgantown.

June 7-11—AMA House of Delegates, Chicago.

Aug. 20-22—114th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.

Oct. 1-4—ASIM, New York City.

WESPAC

West Virginia Medical Political Action Committee

FUND RAISING DINNER

Andrews Room
Holiday Inn Charleston House
600 Kanawha Boulevard, East,
Charleston, W. Va.

JANUARY 24, 1981, 7:30 p. m.
(In conjunction with WVSMA Mid-Winter Clinical Conference)

SCHEDULED GUESTS:

CONGRESSMAN CLEVELAND K. BENEDICT (R., 2d District)

CONGRESSMAN DAVID M. "Mick" STATON (R., 3d District)

Meet our newly-elected Congressmen and help WESPAC insure that your voice is heard on the critical issues facing medicine today.

Please return your reservation form no later than January 16.

Please reserve _____ seats for me at $20.00 per person.

ONLY PERSONAL CHECKS CAN BE ACCEPTED

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Make your personal check payable to WESPAC and return with this form no later than January 16 to:

Robert F. Bible, Esq.
WESPAC Secretary
P. O. Box 1031
Charleston, WV 25324

WVU Medical Center
–News–

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Orthopedics, Medicine Get New Faculty Members

Rudolf K. Lemperg, M. D., has joined the faculty as a Professor of Orthopedic Surgery.

Doctor Lemperg comes to WVU from Sweden where he was Dean of the Medical School and faculty of Umea University as well as Professor and Chairman of Orthopedic Surgery.

Born in Austria, he received his medical degree from the University of Graz, and has a doctorate from the University of Upsala. His postgraduate training was done in Feldbach and Graz, Austria, and at Visby and Upsala in Sweden.

He is author or co-author of 68 papers published in international journals and concerning such subjects as treatment of club foot in children, transplantation of rib cartilage to the hip joint, equinus deformity, hip prostheses, osteoporosis, rheumatoid arthritis and degenerative joint disease.

At WVU, his primary areas of interest will be bone tumors and back surgery.

Elliott W. Chideckel, M. D., has joined the faculty as an Associate Professor of Medicine in the Section of Metabolism and Endocrinology.

Before coming to WVU, Doctor Chideckel was in the Division of Diabetes and Metabolism at Boston University Hospital.

A graduate of Loyola College in Baltimore, he also attended the University of Oklahoma and received his medical degree from the University of Maryland. He took postgraduate training in medicine at the University of Illinois and at Sepulveda Veterans Administration Hospital in California, and was a Fellow in Endocrinology at the University of Washington.

He is co-author of 11 papers and nine abstracts detailing his clinical experience and research.

Genetics Center Innovative Outreach Program

With the establishment of satellite clinics at Romney and Keyser this year, the West Virginia Genetics Center continues to be one of the fastest-growing, efficient and innovative medical outreach programs of its kind in the country.

R. Stephen S. Amato, M. D., the Center's Director, said the West Virginia University-based program rates among the top four or five of the 36 regional genetic centers supported by the National Institutes of Health.

"Our program is extremely efficient because we see large numbers of patients at relatively low costs, and we maintain a cost-contained but extensive educational program," he explained.

The center is one of the 19 original regional genetic services funded by NIH under the Genetic Diseases Act of 1976. In addition to its federal grant, which this year is in excess of $200,000, it also receives support from the March of Dimes, the State Department of Health, patient fees and private contributions.

Doctor Amato, Associate Professor of Pediatrics, also has a research grant from Kallestead Laboratories for further studies on prenatal detection of neural tube defects.

The Center has grown from what was little more than a teaching program in genetics four years ago to an expanded service and educational outreach to West Virginians in all economic strata.

Based in the WVU Department of Pediatrics, it now includes satellite clinics in Charleston, Parkersburg, St. Marys and Elkins besides the two in the Eastern Panhandle.

The center provides evaluation, diagnosis and treatment of birth defects and inherited conditions as well as counseling to parents of children with genetic diseases, and couples concerned with the possibility of bearing a child with a defect.

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  Covers you and your family up to $30,000 per person
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  Pays you up to $100.00 per day when you or a member of your family is hospitalized
- ☐ LOW-COST LIFE INSURANCE
  In units of — $10,000 — $20,000 — $30,000 — $40,000 — $50,000
- ☐ $100,000 ACCIDENTAL DEATH & DISMEMBERMENT INSURANCE
  Around the clock protection — 24 hours a day . . . 365 days a year . . . worldwide
- ☐ OFFICE OVERHEAD DISABILITY POLICY
  Pays your office expense up to $3,500 per mo. while you are disabled
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Third-Party News, Views and Program Concerns

Antidepressants Said Poisoning Threat To Children

The Food and Drug Administration recently warned physicians that commonly prescribed antidepressant drugs pose a growing threat of accidental poisoning to children. The drugs, called tricyclic antidepressants, increasingly are prescribed for depressed adults, and one, imipramine, often is used to treat childhood bed-wetting.

A child can become dangerously ill from swallowing just one or two adult pills or taking too much of the child-dose medicine. As a result, about 1,000 children a year under 5 are rushed to emergency rooms, according to the Consumer Product Safety Commission's National Electronic Injury Surveillance System. Approximately one-half of these children require hospitalization, and it is estimated that 10 children die each year.

The warning to health professionals was in a recent issue of the FDA Drug Bulletin, which was mailed to more than a million physicians, pharmacists, dentists, nurses and other health professionals. They were asked to warn patients of the potential danger to children.

Imipramine in particular is linked with more accidental poisonings in children under 9 than the two other most widely prescribed tricyclic antidepressants — amitriptyline and doxepin. Under such brand names as Tofranil and Presamine, low doses of imipramine are used to treat enuresis (bed-wetting) in children 6 and over.

Withdraw Health Planning Drafts, AMA Says

Two draft documents on health planning should be withdrawn, the American Medical Association said recently in a statement to the Secretary of the U.S. Department of Health and Human Services. The documents outline standards and measurements to be used in evaluating Health Systems Agencies, State Health Planning and Development Agencies, and the Health Planning Program as a whole.

While recognizing the need for federal monitoring of the program, the AMA said the two drafts "represent an unduly extensive imposition of federal standards on the health planning process." The AMA pointed out that the proposed standards are derived from the 1978 National Health Planning Guidelines and the draft National Health Goals, neither of which yet has legal standing.

"The wholesale incorporation of these guidelines and goals into a review system to establish norms, the deviation from which will subject an agency to sanctions, transforms the guidelines and goals into federally-mandated requirements," the AMA said.

The Association stressed that planning authority and direction should be focused at the local level and suggested that any future proposals be drafted to provide greater flexibility for state and local agencies in establishing indicators to measure their progress.

NIH Referrals Desired

The cooperation of physicians is requested in the referral of young patients with malignancies for studies being conducted by the National Cancer Institute, Pediatric Oncology Branch, at the Clinical Center, National Institutes of Health, Bethesda, Maryland.

There will be no cost to the patient for most of the expenses related to these clinical trials.

Physicians interested in further details or in having their patients considered for admission may write or telephone: Attending Physician, Pediatric Oncology Branch, NCI; Building 10, Room 3B-12, National Institutes of Health, Bethesda, Maryland 20205.

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Adjunctive Librax®

Each capsule contains
5 mg chlordiazepoxide HCl
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antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer* and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression: suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver-function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Acute pain is no laughing matter.

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Empirin® c̄ Codeine #3

Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). Ⓒ III

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin c̄ Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin c̄ Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with... two tablets of Empirin c̄ Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.) Ⓒ III

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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Why Red Cross CPR training is good for your business...

Take it from Andy Machak, automotive electrical plant foreman: "I'm alive today because a fellow employee was trained in CPR.

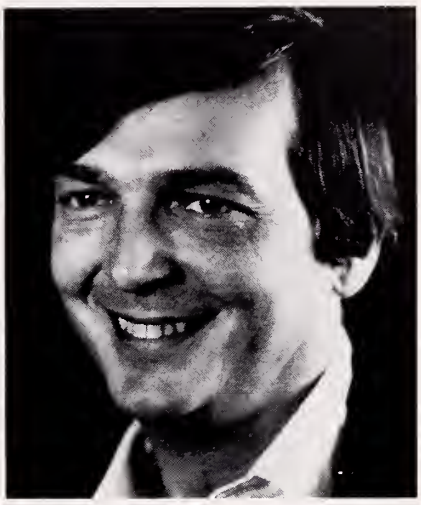
"Cardiopulmonary resuscitation training was one valuable asset that day. I got caught in some heavy machinery at the plant and blacked out.

"They told me later it took six guys to free me. I wasn't breathing. My heart stopped. One of the guys, Don Guarino, said, 'I gotta try anyway.'

"Thanks to his CPR training, he revived me – saved my life.

"Since that happened I realize that no employee is immune from heart attacks or accidents, and a few CPR-trained employees – maybe one for every 50 people – can make the difference between life and death."

Call your Red Cross Chapter and find out about CPR training for your plant or office. CPR training is a valuable asset for any business.



It takes steady, trained hands to perform CPR.

American Red Cross

Obituaries

R. B. LINGER, M. D.

Word recently was received by *The Journal* of the death of Dr. R. B. Linger, retired Clarksburg ophthalmologist-otolaryngologist, on September 20, 1980, at his home. He was 90.

Doctor Linger practiced in Lost Creek (Harrison County) from 1915 to 1929, then in Clarksburg until his retirement in 1966. While in active practice, he was a member of the staff of United Hospital Center, Inc., and the former Saint Mary's Hospital in Clarksburg.

A native of French Creek (Upshur County), Doctor Linger was graduated from West Virginia Wesleyan College and received his M. D. degree in 1915 from the University of Maryland.

He completed postgraduate work at the New York Polyclinic Medical School and Hospital, New York Postgraduate Hospital and New York Eye and Ear Infirmary, all in New York City, and at the Chicago Eye, Ear, Nose and Throat Hospital.

Doctor Linger was an honorary member of the Harrison County Medical Society, West Virginia State Medical Association, American Medical Association and the West Virginia Academy of Ophthalmology and Otolaryngology. He was President of the Harrison County Medical Society in 1936.

Survivors include the widow; three sons, Richard N. Linger of Indianapolis, Indiana; Dr. R. Thomas Linger of Charleston and Dr. Harry T. Linger of Bridgeport; and two daughters, Mrs. John Sutton of Elkins and Mrs. Charles Hamblett of Pelham, New Hampshire.

* * *

RONALD M. CYPHERS, M. D.

Dr. Ronald M. Cyphers of Athens was dead on arrival at a Princeton hospital after a sudden illness on October 25. He was 32.

Doctor Cyphers was head of the emergency room at Princeton Community Hospital, and formerly had been the physician for students at Concord College.

Survivors include the parents, the Reverend and Mrs. James H. Cyphers of Princeton; one daughter, Jenny Lynn Cyphers, at home; three brothers, Hubert J. Cyphers of Tazewell, Vir-

(Continued on Page xvi)

CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d	50 mg/kg/day q.i.d
Chronic Infections	500 mg q.i.d	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin *Structures*	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

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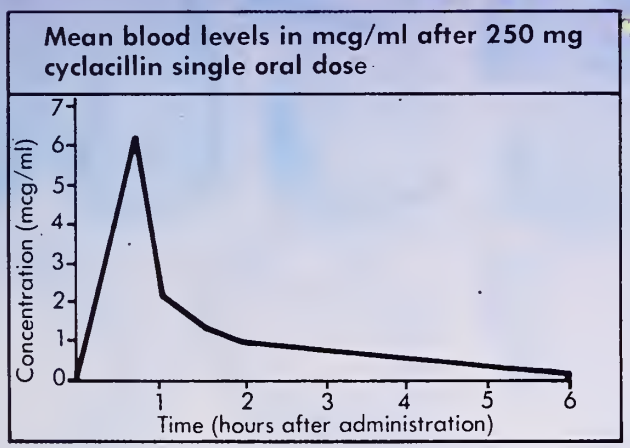
Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{o} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW NAME

ginia, and Dr. Augustus L. Cyphers and State Trooper M. R. Cypehers, both of Princeton; and the maternal grandmother, Mrs. Belle Hagerman of McKinney, Virginia.

* * *

LEO S. KONIECZNY, M. D.

Dr. Leo S. Konieczny, Huntington pediatrician, died on November 11 in a hospital there. He was 58.

Doctor Konieczny was Chief of Pediatrics at St. Mary's Hospital in Huntington.

A native of Bayonne, New Jersey, he was graduated from Seton Hall College in South Orange, New Jersey, and received his M. D. degree in 1946 from Loyola University in Chicago. He interned at the U. S. Naval Hospital in Oakland, Maryland, and completed a residency at St. Michaels Hospital in Newark, New Jersey.

Doctor Konieczny also completed postgraduate studies at the University of Pennsylvania.

A World War II Navy veteran, he was a member of the Cabell County Medical Society, the West Virginia State Medical Association and the American Pediatric Society.

Survivors include the widow; three sons, John and Leo S. Konieczny, both of Huntington, and James Konieczny of Baltimore; two daughters, Mrs. Carolyn Bizijb of Huntington and Elizabeth Konieczny of Princeton, and two sisters, Florence Konieczny and Mrs. May Smith, both of Roselle, New Jersey.

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Gynecology and Obstetrics:
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Internal Medicine:
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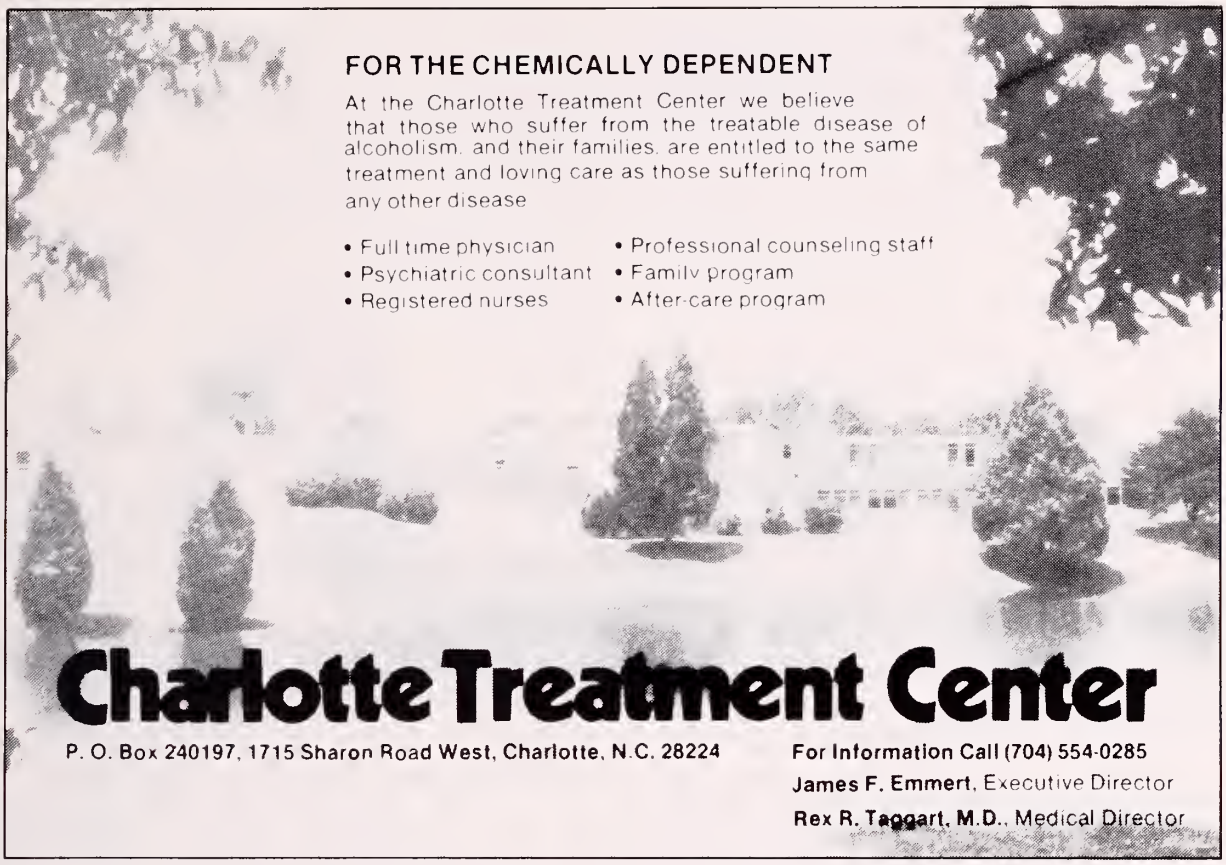

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County Societies

CABELL

Dr. David J. Greenblatt of Boston was the guest speaker for the meeting of the Cabell County Medical Society on November 13 at the Holiday Inn Gateway in Barboursville.

Doctor Greenblatt, a member of the faculty of Tufts University School of Medicine in Boston, gave a well-received presentation on the usefulness of drug levels in the clinical practice.

The Society observed a moment of silence in memory of Dr. Leo S. Konieczny of Huntington, who died on November 11.

Dr. Charles E. Turner of Huntington announced that progress was being made on "Development of the History of Medicine in Cabell County."—Charles E. Turner, M. D., Secretary.

* * *

LOGAN

The Logan County Medical Society met on November 12 at the Logan General Hospital in Logan.

Anthony J. Bowdler, M. D., Professor of Medicine and Chief of the Section of Hematology and Oncology at the Marshall University School of Medicine, was the guest speaker. His subject was chronic lymphocytic leukemia, and he emphasized that the disease may be more aggressive than usually is reported. He described differential diagnoses and treatment protocols.—Herbert D. Stern, M. D., Secretary-Treasurer.

* * *

HARRISON

The Harrison County Medical Society and its Auxiliary joined in presenting a Health Legislation Seminar for newly-elected members of the West Virginia Legislature on November 6 at the Sheraton Inn in Clarksburg.

Charles R. Lewis of Charleston, Executive Secretary of the State Medical Association, and Robert F. Bible, the Association's Staff Counsel, gave a preview of health legislation.

Panelists representing county health programs were moderated by Dr. Mehmet V. Kalaycioglu.

Mrs. Lawrence H. Mills and Mrs. Jack T. Gocke were Auxiliary Co-Chairmen for the event. —Carlos A. Naranjo, M. D., Secretary.

* * *

FAYETTE

Dr. and Mrs. L. Walter Fix of Martinsburg were guests at the meeting of the Fayette County Medical Society on October 1 at Hawk's Nest Country Club.

Doctor Fix, President of the State Medical Association, was the speaker. He spoke on the malpractice insurance situation for Association members, and also mentioned programs for the impaired physician.

The Society met again on December 3 at Oak Hill Hospital.

Dr. Carl R. Adkins of Fayetteville, a member of the State Medical Association's Council, gave an update report on malpractice insurance.

The film, "Diet for a Small Planet," was shown.—Daniel B. Doyle, M. D., Secretary.

* * *

McDOWELL

The McDowell County Medical Society met on November 12 at Stevens Clinic Hospital in Welch.

The scientific program was presented by Dr. Rajaratnam Jeevanandhan, internist-nephrologist at Stevens Clinic Hospital. Doctor Jeevanandhan spoke on acute renal failure and acute tubular necrosis. His talk was well received.—Muthusami Kuppusami, M. D., Secretary.

* * *

PARKERSBURG ACADEMY

Dr. Sidney I. Lerner of Cincinnati was the guest speaker at the meeting of the Parkersburg Academy of Medicine on November 12 at the Parkersburg Holiday Inn.

Doctor Lerner, Associate Professor of Environmental Health at the University of Cincinnati College of Medicine, spoke on "The Practice of Occupational Medicine and Industrial Toxicology".

Dr. Harry Shannon of Parkersburg, Vice President of the State Medical Association, gave a report on the most recent meeting of the Association's Council in Charleston.—Bill M. Atkinson, M. D., Secretary-Treasurer.

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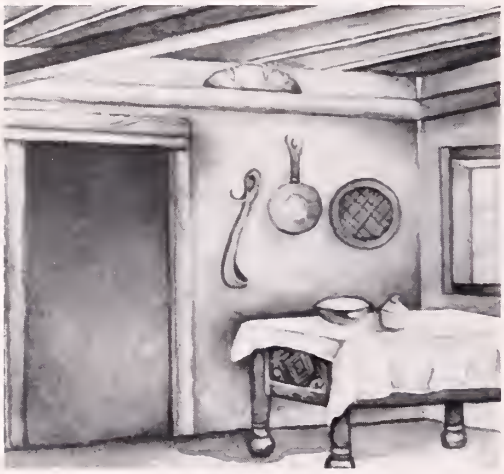
Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]

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1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979 The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

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‡Not all isolates may have been tested using both discs.

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INDICATIONS

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected (See Important Note below)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci Group A beta-hemolytic streptococci and penicillin G-resistant and penicillin G-sensitive staphylococci If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing approximating the high percentage of resistant staphylococcal isolates found in the hospital For this reason it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing Such strains of staphylococci have been capable of producing serious disease in some instances resulting in fatality Because of this there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently) Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus

CONTRAINDICATIONS

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication

WARNING

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin Before therapy with a penicillin careful inquiry should be made concerning previous hypersensitivity reactions to penicillins cephalosporins and other allergens If an allergic reaction occurs the drug should be discontinued and the patient treated with the usual agents e g pressor amines antihistamines and corticosteroids

Safety for use in pregnancy has not been established

PRECAUTIONS

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound as with other antibiotics If superinfection occurs during therapy appropriate measures should be taken

As with any potent drug periodic assessment of organ system function including renal hepatic and hematopoietic should be made during long-term therapy

ADVERSE REACTIONS

Gastrointestinal disturbances such as nausea epigastric discomfort flatulence and loose stools have been noted by some patients Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made Skin rashes and allergic symptoms including wheezing and sneezing have occasionally been encountered Eosinophilia with or without overt allergic manifestations has been noted in some patients during therapy

USUAL DOSAGE

Adults 250 mg q 6h

Children 50 mg /Kg /day in equally divided doses q 6h Children weighing more than 20 Kg should be given the adult dose Administer on empty stomach for maximum absorption

N B INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS

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Book Review

IMMUNOLOGY II — Joseph Bellanti, M. D. 813 pages. Illustrated. Price $24 (Canada, $26.90). Philadelphia, W. B. Saunders Company, 1978.

The second edition of Bellanti's textbook, *Immunology II*, is extremely well written and illustrated, which would make it of interest to medical students and physicians in academic and clinical areas. Few immunology texts are as clear and informative. This is due to the careful organization and logical presentation of material which is being upgraded almost daily by vast amounts of information being made available in this field today.

Immunology II is an 813-page textbook that is divided into three major areas: I. Principles of Immunology, II. Mechanisms of Response, and III. Clinical Applications of Immunology. The book is multi-authored and has been well edited. Of particular interest is the Appendix, "Approach to the Patient with Immunological Diseases," in the last 20 pages of the book bringing together theory, practice and experience as a guide to the use of immunology in clinical medicine.

The illustrations in this book deserve special attention. The drawings, tables and photographs are clear and are available in a teaching slide series for use in educational presentations. This reviewer would suggest that every teaching hospital have in its library a copy of *Immunology II* along with a set of 35mm slides of the illustrations.

In an era when immunologic discoveries and applications are more abundant than textbooks on the subject can record, it may appear that some chapters are more limited than others. One must remember that this book is a textbook of immunology within a single cover and not a looseleaf compendium containing all aspects of the field. In this reviewer's opinion, Bellanti's *Immunology II* is a valuable, unique and informative textbook which stands as a tribute to the ability of its author to make a complex area of medicine both enjoyable and understandable. I would recommend this book without reservation. — Merle S. Scherr, M. D.

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WANTED—Physician to fulfill the critical needs in West Virginia's State Institutions. Qualification: A permanent license to practice medicine in West Virginia and three years of full-time paid experience. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

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PSYCHIATRIST WANTED—Fast-growing Northern Panhandle Mental Health Center seeking a progressive psychiatrist to be clinical director for outpatient, partial hospitalization and aftercare. Affiliation with a 600-bed tertiary care institution with medical school less than two hours away. Qualifications: Board eligibility, with desire to become Board Certified within one to two years, and dedication to quality. Salary $40,000 to $45,000. Contact Ryan D. Beaty, Executive Director, Northern Panhandle Mental Health Center, Inc., 2121 Eoff Street, Wheeling, WV 26003. Telephone: (304) 233-6250.

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WANTED—Two emergency service physicians to join a four-member group on a private fee for service practice basis at a 215-bed community hospital located in Princeton, West Virginia. Contact Tom Benoit, Associate Administrator, Princeton Community Hospital, Princeton, WV 24740. Telephone: (304) 425-2434.

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George T. Harding, Jr., M. D.
Medical Director

Thomas D. Pittman
Administrator

MEMBER BLUE CROSS OF CENTRAL OHIO
ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS

ROCHE

For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
- Distinctive antibacterial action plus wide spectrum helps eradicate recurrent UTI
- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register*, 37:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack

ROCHE

Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

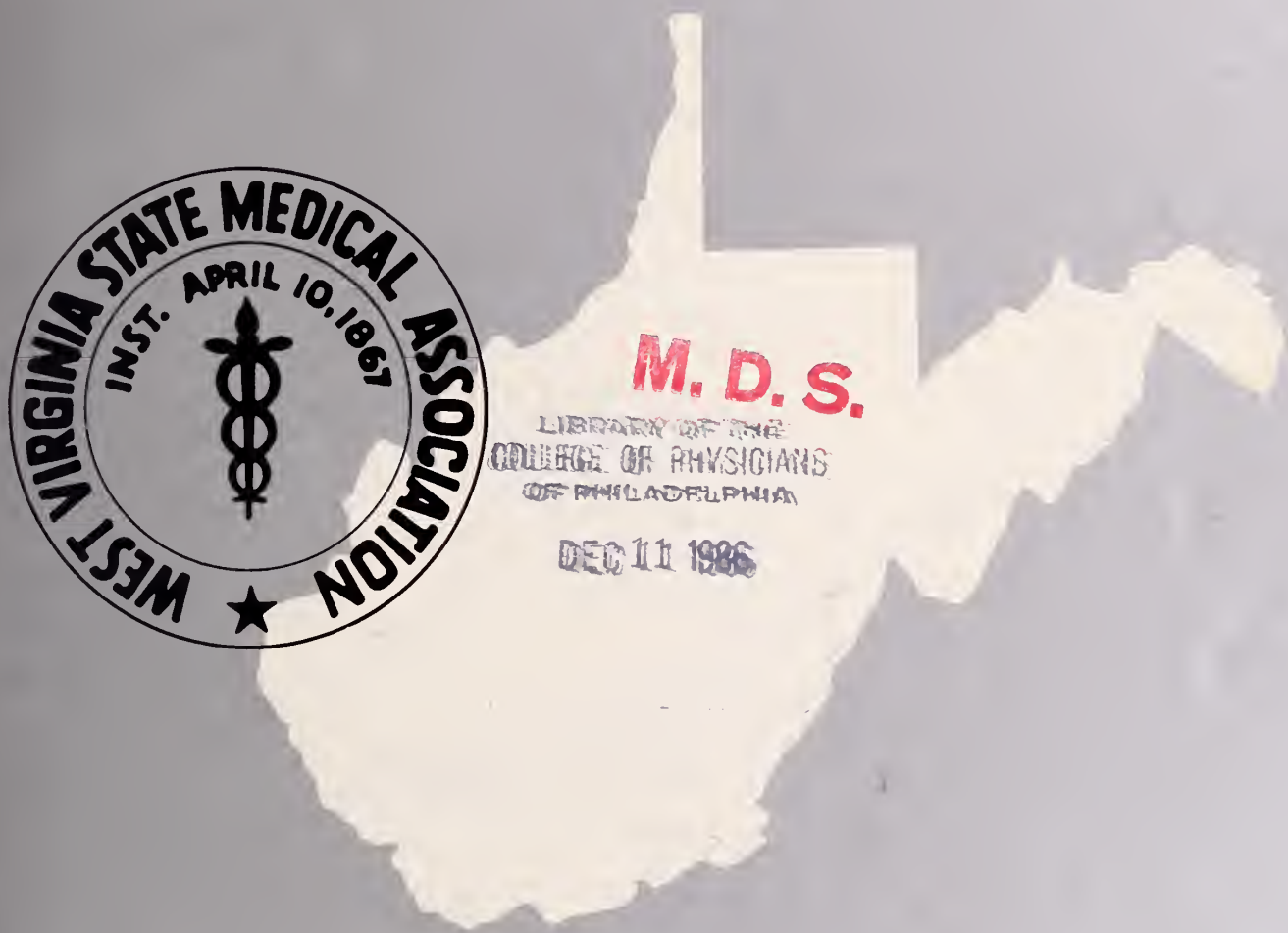
Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

STACKS

The West Virginia Medical Journal



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114th Annual Meeting, The Greenbrier
August 20-22, 1981

Volume 77 Number 2
February 1981

half-life

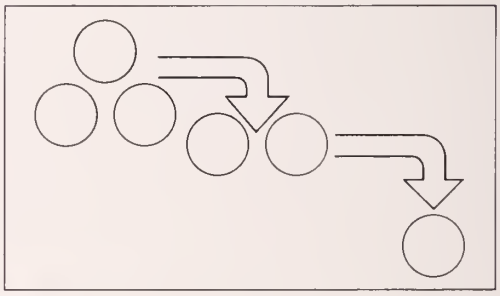
Just one built-in advantage

Ensures smooth therapeutic effect even if a dose is missed The relatively longer half-life of Valium® (diazepam/Roche) has important clinical and pharmacological implications. Steady-state levels generally are reached within 5-7 days with no further accumulation. At this plateau, the patient benefits from the consistent, steady response you expect. Sharp blood level variations, frequently attributed to agents with a short half-life, do not appear with Valium.

Avoids sudden symptom breakthrough Once steady-state levels are achieved, sudden reemergence of symptoms is unlikely. Diazepam and its active metabolites exhibit overlapping half-lives that are advantageous not only during therapy but especially when pharmacologic support is discontinued. Elimination rates are gradual with Valium and thus provide a compatible adjustment interval for the patient. In comparison, blood levels of short-acting agents with inactive metabolites decrease more rapidly and are more likely to be associated with withdrawal symptoms if medication is stopped abruptly.* With Valium unwanted effects other than drowsiness or ataxia are rare. Patients should be cautioned about driving and advised to avoid alcohol.

Tapers naturally; complements gradual dosage reduction at discontinuation When any psychoactive medication is discontinued, it is good medical practice to gradually reduce the dosage. From your own experience you know this is rarely necessary after a short course of Valium therapy, but for patients on extended therapy, gradual reduction of dosage is advisable. This regimen, along with the self-tapering feature of Valium, provides a smooth transition to independent coping.

*Sellers EM: *Drug Metab Rev* 8(1):5-11, 1978



in the management of symptoms of anxiety

Valium® IV

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

effective therapy through efficient pharmacodynamics

Before prescribing, please see summary of product information on next page

ROCHE®

Valium® IV
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

ROCHE®
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

THE ULTIMATE DRIVING MACHINE.

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Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™, Ru-Tuss® and Ru-Vert®. This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-Cl™

For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.

For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
  The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.

F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme ½ ounce (15 gm) tubes NDC 0524-0026-S1
F-E-P Creme Plain ½ ounce (15 gm) tubes NDC 0524-0025-S1

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy; convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-Cl™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-Cl is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-Cl may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-Cl be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-Cl taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-Cl are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

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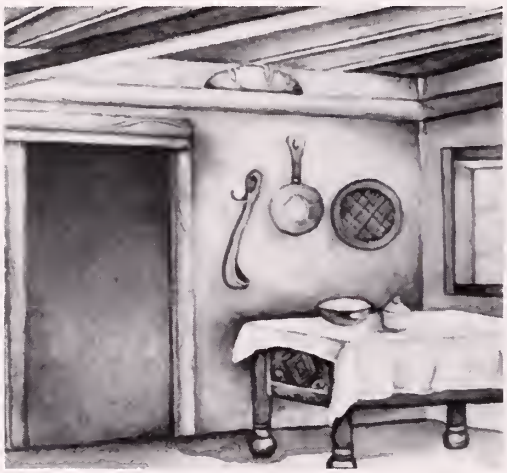
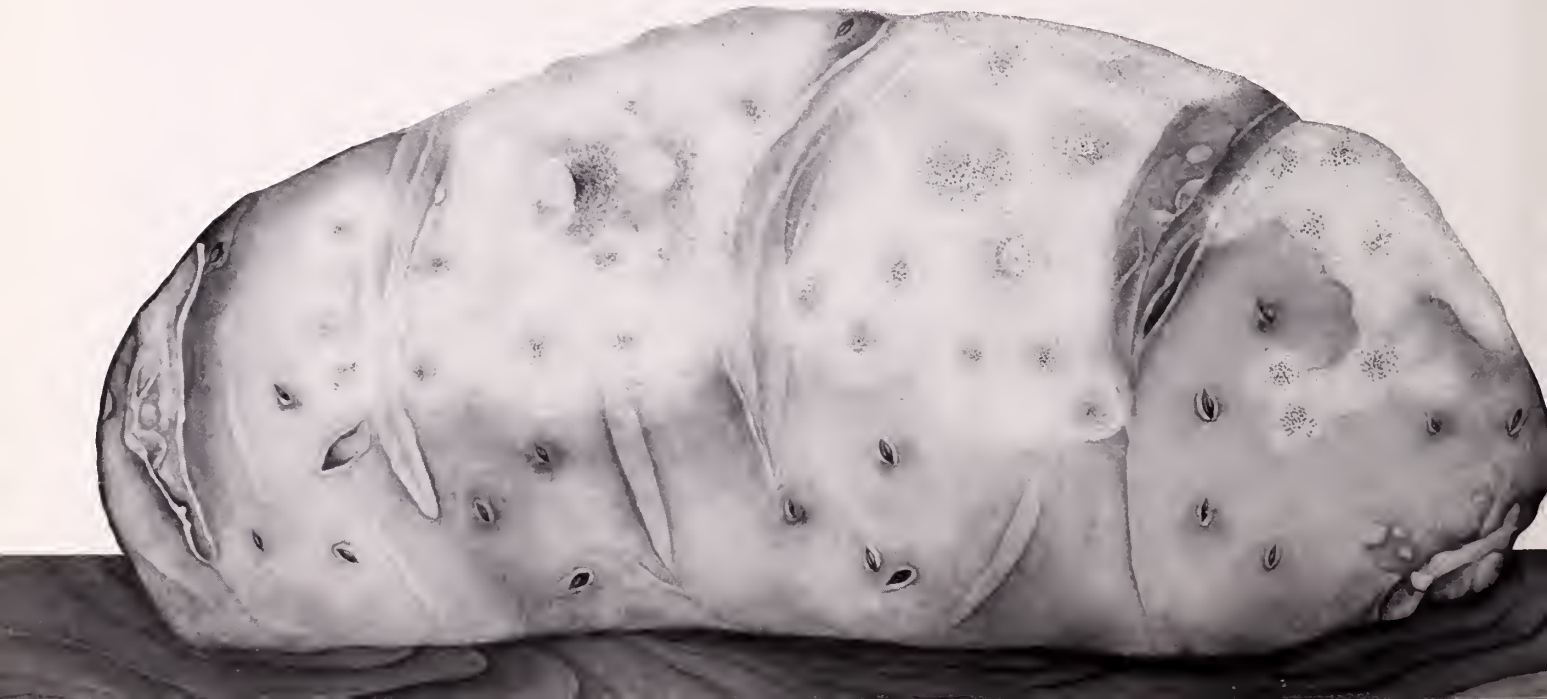
Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]



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1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

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‡Not all isolates may have been tested using both discs.

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Brief Summary of Prescribing Information

For complete information, consult Official Package Circular
(12) 9/11/75

INDICATIONS

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected (See Important Note below)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci Group A beta-hemolytic streptococci and penicillin G-resistant and penicillin G-sensitive staphylococci If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing approximating the high percentage of resistant staphylococcal isolates found in the hospital For this reason it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing Such strains of staphylococci have been capable of producing serious disease in some instances resulting in fatality Because of this there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently) Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus

CONTRAINDICATIONS

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin Before therapy with a penicillin careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins and other allergens If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e g pressor amines antihistamines, and corticosteroids

Safety for use in pregnancy has not been established

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics If superinfection occurs during therapy appropriate measures should be taken

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea epigastric discomfort, flatulence and loose stools, have been noted by some patients Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made Skin rashes and allergic symptoms, including wheezing and sneezing have occasionally been encountered Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy

USUAL DOSAGE:

Adults 250 mg q 6h

Children 50 mg /Kg /day in equally divided doses q 6h Children weighing more than 20 Kg should be given the adult dose Administer on empty stomach for maximum absorption.

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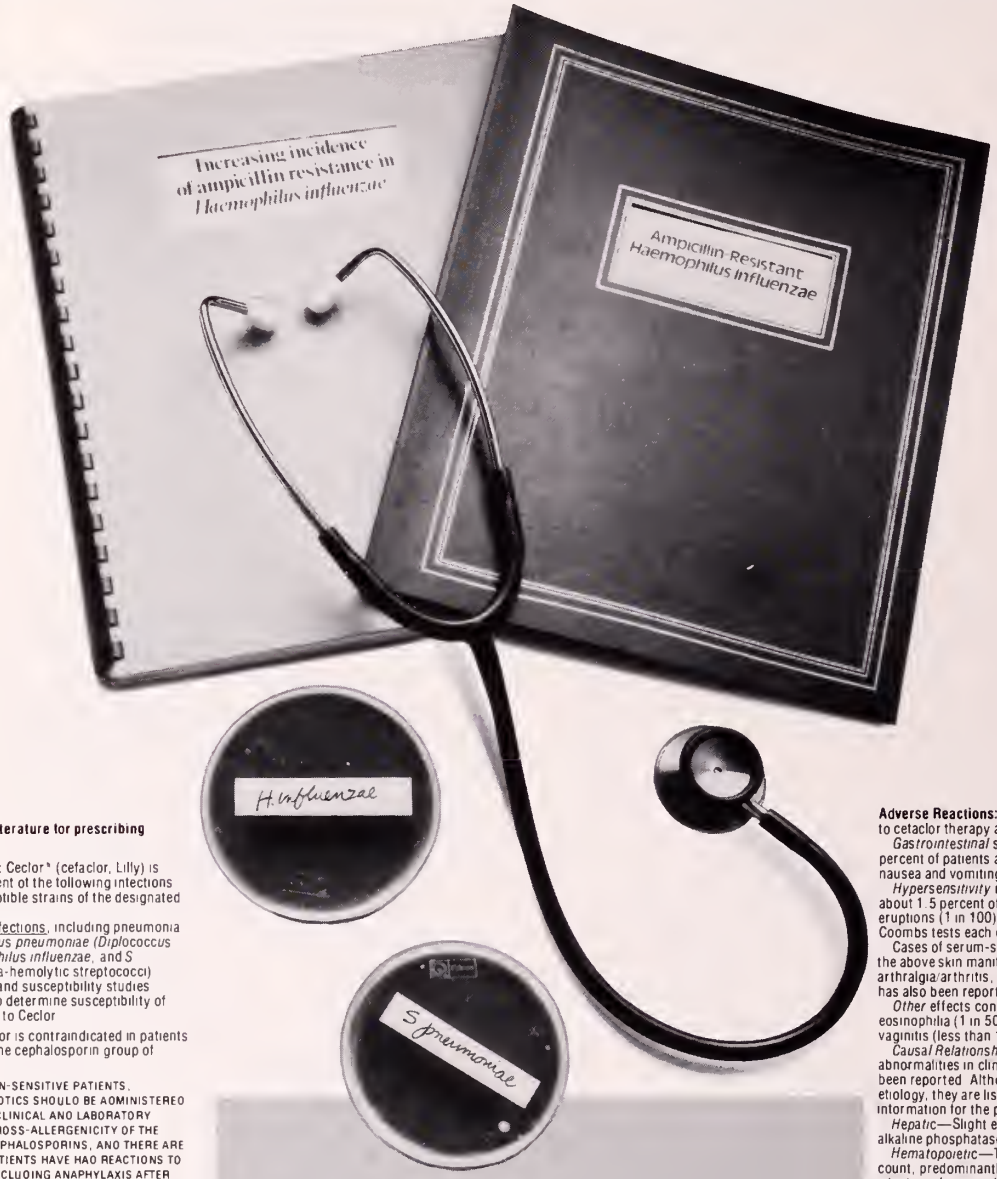
An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103060R]

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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cefaclor

Pulvules®, 250 and 500 mg

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae*.[8]

Note Ceclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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1 Antimicrob Agents Chemother., *8*:91, 1975
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5 Current Chemotherapy (edited by W Siegenthaler and R Luthy), II: 880 Washington, D C American Society for Microbiology, 1978
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7 Data on file, Eli Lilly and Company
8 Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G Douglas, Jr., and J.E Bennett), p 487. New York John Wiley & Sons, 1979.

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:
"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression: suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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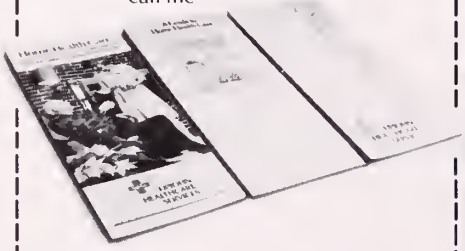

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The West Virginia Medical Journal

Vol. 77, No. 2 February, 1981

Adynamic Ureteral Segment: Primary Megaureter

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WALTER D. MOSS III, M. D.
Pathologist, St. Luke's Hospital, Bluefield

The pathogenesis of primary megaureter is discussed with a brief review of the literature and our own findings. A new system of grading has been introduced which was found to be very useful in predicting the prognosis. The clinical picture and methods of management also have been discussed with special reference to reconstructive surgery.

Congenital ureteral obstructions may be due to atresia, valves, vascular bands or adynamic segments. They are more common at the ureteropelvic junction, less so at the ureterovesical junction and least of all in the mid-ureter.

The adynamic ureteral segment is a much-debated urological subject. Opinion concerning its etiology, pathogenesis and methods of treatment varies greatly. Many of the early studies in pathogenesis involved the lower end of the ureter. Caulk, in 1923, first coined the term "Primary Megaloureter," comparing it to Hirchsprung's disease.[1] Hurst and Gaymer-Jones reported a case of "Megaloureter" which they believed to be caused by achalasia.[2] Kretschmer and Hibbs were the first investigators to describe hypertrophy of the lower ureteral muscle; their report was based on autopsy studies of three patients.[3]

In 1952, Swenson suggested a neurological cause for the condition and postulated a reduced number of sympathetic ganglia in the bladder and adjacent ureter.[4] This hypothesis later was refuted by Bischoff, who demonstrated normal ganglion counts.[5] This latter work also was confirmed by Leibowitz and Bodian who, in addition, demonstrated normal pyelograms in a number of patients with Hirchsprung's disease, disproving the suggestion of a common etiology.[6] But the more recent studies on the histological structure of the ureter by electron microscopy strongly dispute the presence of ganglia.[7] The present pathological picture seems to dwell on the aberrations of muscle and collagen.

Just as there are many theories on the pathogenesis, many methods of therapy have been suggested. Recommended management includes antimicrobials alone; ureteral dilatation; ureteral meatotomy; reimplantation with excision of the involved segment and tailoring of the ureter; ileal replacement of the ureter, and nephroureterectomy.[8-10]

Materials and Method

Between 1965 and 1975, we had the opportunity of studying 27 patients with 37 megaureters. They were all investigated with special reference to renal function and cinepyelography. Renal function was assessed by serial estimations of serum creatinine and creatinine clearance in bilateral cases. In unilateral cases, these were supplemented by renal scans.

In 1966, we evolved a system of grading primary megaureters based on cinepyelography.[11] Grade 1 is where the lower third of the ureter shows hyperactivity (both peristalsis and reverse peristalsis) with or without minimal dilatation.

In Grade 2, the lower third of the ureter becomes atonic and dilated, but the upper two thirds continues to show hyperactivity.

Grade 3 is the most advanced case where there is total inactivity and dilatation of the whole ureter.

We have based our management on this system of grading (Figure 1) and found it to be very useful in predicting the prognosis. Other investigations include voiding cystourethrograms, cystoscopy and calibration of distal ureter to exclude mechanical obstruction, and retrograde pyelograms where indicated.

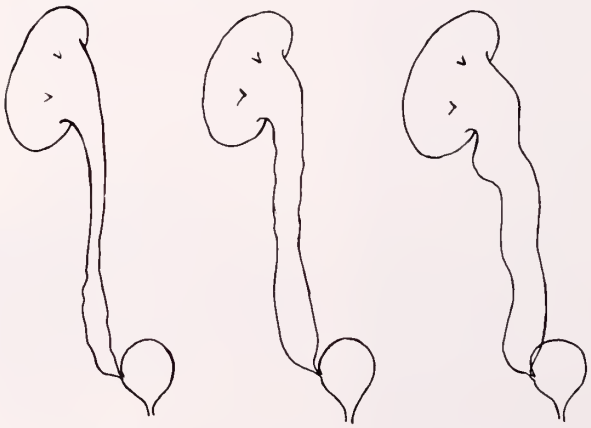
Grade 1 megaureters were watched conservatively and others were subjected to reconstructive surgery where feasible. This consisted of excision of involved segment of the ureter with or without tailoring and reimplantation. Preliminary loop-ureterostomy was carried out on two Grade 3 megaureters to salvage renal function. Criteria for follow-up were pyelographic appearances and renal function.

Results

Of the 27 patients, there were 14 children (under 15 years) and 13 adults. Of the children, four infants were seen for severe complaints within the first six months of life. There were nine children between one and 10 years, and one between 10 and 14 years.

There were 10 patients with bilateral megaureters. They were distributed equally among children and adults. Sex distribution was equal in adults but showed a marked male preponderance in children. There were 11 patients with 12 other congenital anomalies, with male children showing the highest incidence.

Children presented mostly with pyelonephritis. Of these, two had multiple adynamic segments (one in the mid-ureter and the other in the mid-ureter and u. p. junction), and one child presented after satisfactory resection of posterior urethral valves.



Grade 1 **Grade 2** **Grade 3**

Figure 1. Schematic diagram of cinepyelographic grading of primary megaureter.

Adults were diagnosed on routine investigations for other complaints, though two of them did have loin pains.

Higher-grade megaureters were more common in children while lower-grade lesions frequently were seen in adults. Higher-grade lesions also were common in male children with bilateral megaureters. Adult patients showed no predilection for side or sex. Ohviously, the lesion is more benign in adults.

There were 14 patients with 20 Grade 1 megaureters in the study. They all had good renal function at the time of presentation. They were followed for 5-15 years on conservative treatment. Both the pyelographic appearances and renal function remained stable.

In Grade 2 megaureter, there were five patients with six megaureters. All had renal function within normal limits, including the one patient with bilateral involvement. Reconstructive surgery was performed on all patients. One required ureterolysis because of subsequent development of ohstruction at the ureteral hiatus. All the others showed pyelographic improvement which remained stable. Renal function either improved or remained stable in all these patients.

In grade 3, there were eight patients with 11 megaureters. Two patients with bilateral megaureters had preliminary loop ureterostomy within the first six months of their lives to salvage renal function. One of these patients, with distal and mid-ureteral adynamic segments, later was treated by ileal replacement of the ureter, but

TABLE 1

Total Number of Megaureters in the Study and Their Grading

Grading of Megaureters	*Children*	*Adults*	*Total*
Grade 1 Megaureters	6	14	20
Grade 2 Megaureters	3	3	6
Grade 3 Megaureters	10	1	11
Total number of Megaureters	19	18	37

TABLE 2

Distribution of Megaureters in Relation to Age, Sex and Laterality

Megaureters	*Children*	*Adults*	*Total*
Bilateral vs. Unilateral	5 : 9	5 : 8	10 : 17
Bilateral Megaureters			
Male : Female ratio	5 : 0	2 : 3	7 : 3
Unilateral Megaureters			
No sex predilection			
Right : Left ratio	4 : 5	5 : 3	9 : 8
Total Sex incidence			
Male : Female ratio	10 : 4	9 : 4	19 : 8

there was considerable deterioration after a year, requiring nephroureterectomy. The other made a very satisfactory improvement after multi-staged reconstruction.

Two patients were followed on conservative treatment with regrettable results. One was seen first at the age of six with unilateral kidney and was followed for 15 years (by our predecessor). The pyelographic appearances and renal function deteriorated considerably. After reconstructive surgery the IVP remained unchanged over a period of seven years, but the renal function showed further, but slight, deterioration.

Another patient with Grade 1 lesion on one side and Grade 3 on the other was first seen with stress incontinence, and a Marshall-Marchetti operation was performed. In two years, the IVP showed deterioration of the Grade 3 megaureter necessitating reconstruction.

The remaining four ureters that were subjected to reconstructive surgery showed improvement by stable pyelographic appearance. Renal function showed improvement in two patients, a slight deterioration in one, but was unchanged in the other.

TABLE 3

Incidence of Other Congenital Anomalies

Anomalies	*Children*	*Adults*	*Total*
Patients with anomalies	9	2	11
Total number of anomalies	10	2	12
Male : Female ratio	7 : 2	2 : 0	9 : 2
Sites of anomalies:			
Kidney (absence, dysplasia, bifid pelvis, calyceal diverticulum)	4	2	6
Ureter (multiple adynamic segments)	3	0	3
Bladder & Urethra (posterior urethral valves)	1	0	1
Genital (undescended testis)	1	0	1
Gastrointestinal (imperforate anus)	1	0	1

TABLE 4

Presenting Symptoms in Patients with Megaureters

Presenting Signs & Symptoms	*Children*	*Adults*	*Total*
Lower urinary tract infection	—	3	3
Upper urinary tract infection	8	2	10
Pain in loins	—	2	2
Hematuria	1	—	1
Renal and/or ureteral stones	—	3	3
Obstructive symptoms/retention	1	1	2
Renal failure	1	—	1
Routine I.V.P.	3	3	6
Other systems	1	1	2

Discussion

Murnaghan was the first of modern investigators who found circular muscle fibers in the intramural ureter and their preponderance in the distal third.[12-14] In his perfusion experiments he demonstrated the initiation of retrograde conduction waves in the lower ureter when low pressures were used for perfusion. With higher pressures he noted a combination of muscle activity at the upper and lower ends of the ureter, but with the maintenance of retrograde propulsion. When perfusion pressures were raised to a very high level complete atony of the ureter occurred. At UP junction, however, he observed a preponderance of longitudinal muscle fibers and a reduction in muscle mass. He again observed the significance of higher perfusion pressures and suggested routine distension of the renal pelvis at operation to demonstrate the abnormality of the pelvi-ureteral conduction.

More recently, McKinnon and Foote have studied the histology of both the UP and UV junctions in detail.[15,16] They found either the presence of abnormally small muscle fibers or the virtual absence of muscle. They stressed the importance of preventing shrinkage while fixing the specimen. In the megaureter they also reported marked circular hypertrophy immediately proximal to the narrowed adynamic segment.

Terry Allan, in 1970, reported his histological studies in 85 UP junctions, seven lower ureteral segments and three mid-ureteral segments.[17] He found that the muscle arrangements did not alter in any qualitative manner, but that there was a quantitative reduction in muscle bulk. He also suggests the possibility of the compression of developing ureter *in utero* by abnormal blood vessels resulting in later development of adynamic segments.

Tanagho *et al.*, in a joint study of 12 patients with lower-ureteral adynamic segments, found an abnormal abundance of circular fibers at the proximal end of the non-dilated segment.[18]

Notley, in 1971, reported from electron microscopic studies an increase in inelastic collagen fibers. The muscle cells were widely separated at the UP junction but normal at the distal end.[7]

It is clear from this review of the literature that the pathogenesis of the adynamic segment of the ureter, wherever it may be situated, is still in real doubt.

We have been able to study histologically 13 lower-ureteral segments and three mid-ureteral segments. In these patients the dominant finding has been an area of increased collagen tissue with

a few muscle bundles. In addition, proximal muscular hypertrophy has been seen (Figures 2-4) in the lower-ureteral segments.

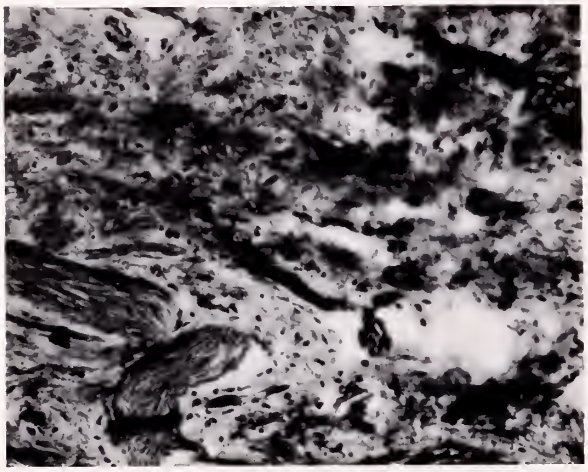


Figure 2. (Masson's trichrome, 400 x): Adynamic ureteral segment demonstrating replacement of most muscular fibers by collagen.

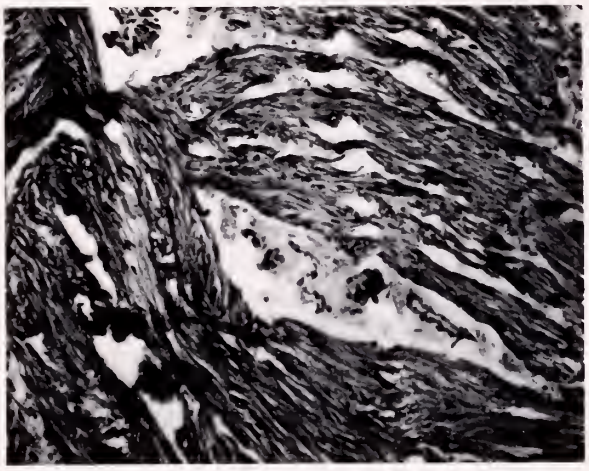


Figure 3. (Masson's trichrome, 400 x): Proximal ureteral segment demonstrating marked muscular hyperplasia and hypertrophy.

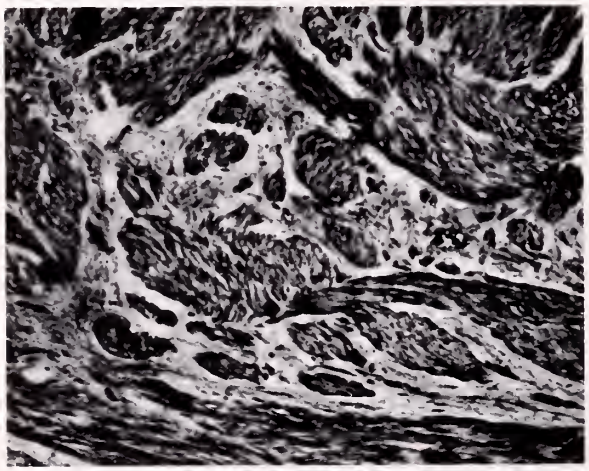


Figure 4. (Masson's trichrome, 400 x): Normal ureteral segment illustrating normal ratio of collagen to smooth muscle.

Summary

To summarize the present pathological picture, there are those investigators who believe that an absence of muscle fibers or reduction in muscle bulk is the main factor.[12-17,19] Others believe that malorientation or a change in the normal arrangement of the muscle fibers is responsible.[13,17] Finally, there are those who believe that an increase in collagen tissue is the primary factor.[7,18] We found in our patients a combination of reduced muscle mass and an increased collagen. We feel justified in suggesting that there may be more than one cause of this condition, or that the final pathological picture may not represent the initial etiology.

Clinically, these obstructions are non-occlusive and functional in type. Conduction of urine across this aperistaltic segment is mechanical, and the degree of obstruction depends on the caliber of the lumen.[18] Wendell and King showed in dogs with implantation of silastic ureteral segments of wide lumen that hydronephrosis did not develop.[20] Sporadic mention of such cases in humans, followed for long periods with no deterioration, has been made in the literature.[18,21]

From our figures of the results and management it becomes quite clear that Grade 1 megaureter is a benign condition, and can be watched conservatively safely while the others require surgical intervention. In Grade 2, one can offer, unless untoward complications occur, an excellent prognosis. Grade 3 megaureter, however, presents a more ominous prognosis. With reconstructive surgery a reasonable result can be expected; however, in a proportion of patients a slow but unrelenting deterioration of renal function may occur despite surgery.

Acknowledgement

We wish to thank Andrew W. Bruce, M. D., Professor of Urology, Queen's University, Kingston, Ontario, Canada, for permitting us the use of some of the clinical material from his department.

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A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

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Thyrotoxicosis Presenting As Menometrorrhagia And Possible Coronary Spasm: A Case Report

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The diagnosis of thyrotoxicosis usually is determined easily. The atypical, obscure or masked cases of thyrotoxicosis, however, are recognized with greater difficulty or at times overlooked entirely. In some patients, the cardiac, neuromuscular, gastrointestinal or central nervous system manifestations of thyrotoxicosis are so prominent that they distract one's attention from underlying thyroid disease.[1,2]

Bizarre manifestations of hyperthyroidism including abdominal pain, peripheral edema, periarthritis of the shoulder, skeletal demineralization, severe myopathy, encephalopathy and epilepsy were described by Chapman and Maloof.[2] Leon-Sotomayor *et al.*[3] were the first ones to describe a patient who presented with menometrorrhagia, epistaxis and hemoptysis. This communication describes a patient with thyrotoxicosis presenting with menometrorrhagia and chest pain, which subsided upon restoration of the euthyroid state.

Case Report

A 26-year-old, Caucasian female was admitted to Fairmont General Hospital in 1977 with a history of bleeding per vaginum daily for two years. She also suffered from chest pain which did not bear any relationship to effort and emotional disturbance. This chest pain at rest consistently was relieved by sublingual nitroglycerine. She had suffered from recurrent attacks of diarrhea and upper-respiratory-tract infections.

Physical examination revealed a nervous young woman with a small goitre with no bruit. Aside from sinus tachycardia, systemic examination failed to reveal any other abnormality. EKG was not obtained while she was having chest pain.

Her gynecologist performed two D & Cs and found nothing abnormal. Because she continued to bleed, she was advised to have a hysterectomy by her gynecologist. She refused because she wanted to have another child.

Coagulation studies were normal. Thyroid uptake, scan and thyroid functions pointed towards thyrotoxicosis. She was started on methimazol and discharged home. She resumed her normal menstrual cycle and became pregnant in 1979.

Review of the literature[4] reveals a report of a patient who experienced coronary spasm with ventricular fibrillation during thyrotoxicosis, and in whom good response to attaining euthyroid state was noted.

Apathetic Hyperthyroidism

Apathetic hyperthyroidism, especially in old age, is well known. Thyrotoxicosis has been confused with "reticulosis" when it has presented in the form of splenomegaly, lymphocytosis, and lymphadenopathy. Albuminuria, glycosuria and nephrocalcinosis, due to hyperthyroid state, all have been described in the literature. Atypical manifestations of hyperthyroidism such as periodic muscular paralysis, myasthenia, psychosis and unilateral eye signs have been described.[2]

Thrombocytopenia and impairment of hepatic synthesis of certain clotting factors in association with thyrotoxicosis are reported in the literature. In this case I could not find any disturbance of the patient's coagulation studies or any evidence of liver dysfunction. The pathophysiology of bleeding in the patient is not clear. An analogous situation has been observed in other related clinical entities in which a wide pulse pressure and a hyperdynamic cardiovascular system have been associated with obscure bleeding manifestations.

The mechanism triggering coronary spasm is unknown in thyrotoxicosis. Studies[5] suggest the autonomic nervous system as etiologic in inducing coronary spasm in such patients. In patients presenting with variant angina, evaluation of the thyroid state may be needed even in the absence of clinical evidence of thyrotoxicosis.

It is hoped that this case report will heighten clinical awareness that thyrotoxicosis may present as variant angina and/or menometrorrhagia.

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Norwegian Scabies: A Case Report And Review Of The Literature

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Norwegian scabies is a rare variant of scabies seen primarily in institutionalized and debilitated patients. The rarity of the entity, in addition to its resemblance to other unrelated disorders, results in frequent misdiagnosis.

The following case report is intended to alert the primary care physician to the existence of this bizarre condition.

A 45-year-old man with Down's Syndrome had been treated for eczematous dermatitis for several years with topical steroids when referred to a local dermatologist.

The patient presented with crusted hyperkeratosis and generalized lichenified plaques. The eruption was mildly pruritic (Figures 1, 2, 3).

The patient's family recently had been treated for typical scabies: highly pruritic lesions with scrapings positive for mites. Because of the family history, the patient was examined for scabies. Innumerable mites were demonstrated in the hyperkeratotic lesions (Figure 4).

Resolution of the eruption was slow. After two weeks of generalized therapy with 10 per cent sulfur ointment, the patient improved; however, eyebrows, hands and feet continued to be involved. Nine months of persistent application of 10 per cent sulfur ointment under occlusion finally cleared the hands and feet. With persistent therapy, all the remaining lesions on face, scalp, groin and axillae cleared during this time. The patient has remained clear for over one year.

Discussion

First described in 1848 by Boeck, Norwegian scabies is a rare entity. Fewer than 10 cases had been reported by 1960 in the United States. Classically, it is seen in patients with Down's Syndrome or leprosy. More recently, the disease

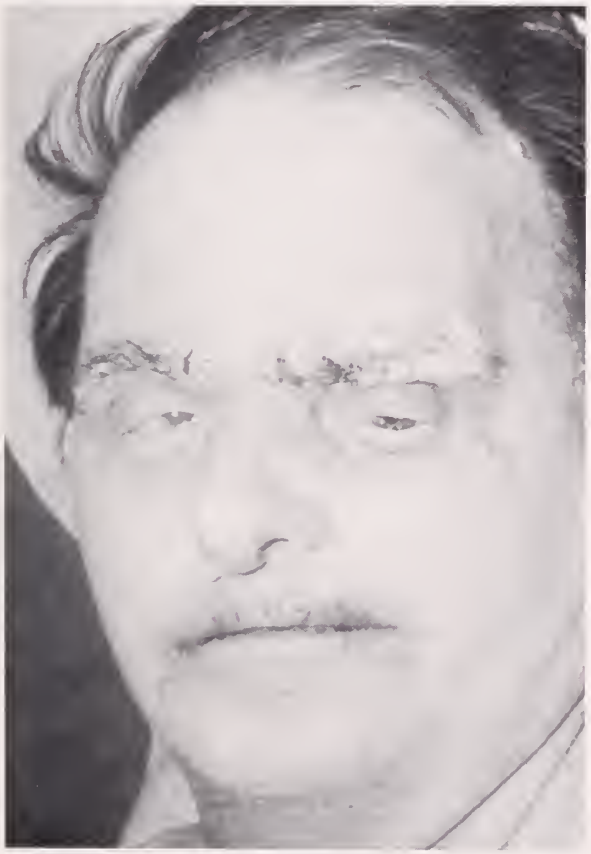

Figure 1.

Figure 2.

has been reported in leukemics and patients undergoing immunosuppressive therapy.[2, 5] Several cases in normal individuals treated with long-term topical steroids have been described.[3, 4]

Norwegian scabies is the result of massive infestation with Sarcoptes scabei, the mite responsible for ordinary scabies.

The lesions include severe, crusted, hyperkeratosis of palms, soles and scalp with subungal hyperkeratosis and symmetrical, crusted, scaling plaques over extremities. Pruritis, the hallmark of ordinary scabies, may or may not be present.[5] The hyperkeratotic lesions contain literally millions of organisms, in contradistinction to ordinary scabies where generally fewer than 10 mites are present.[6]

Because of the myriad of parasites present, Norwegian scabies is highly infectious. Patients often act as a reservoir for endemic outbreaks of scabies.

The dissimilarity between the lesions of Norwegian and ordinary scabies has been attributed to several different mechanisms. Absence of cutaneous sensation and/or lack of scratching seems to be pathogenic in some patients (leprosy, syringomyelia). Immune deficiency (primarily cell mediated immunity) is a common denominator for most patients. Poor hygiene also has been suggested as a contributing factor.[8]

Figure 3.

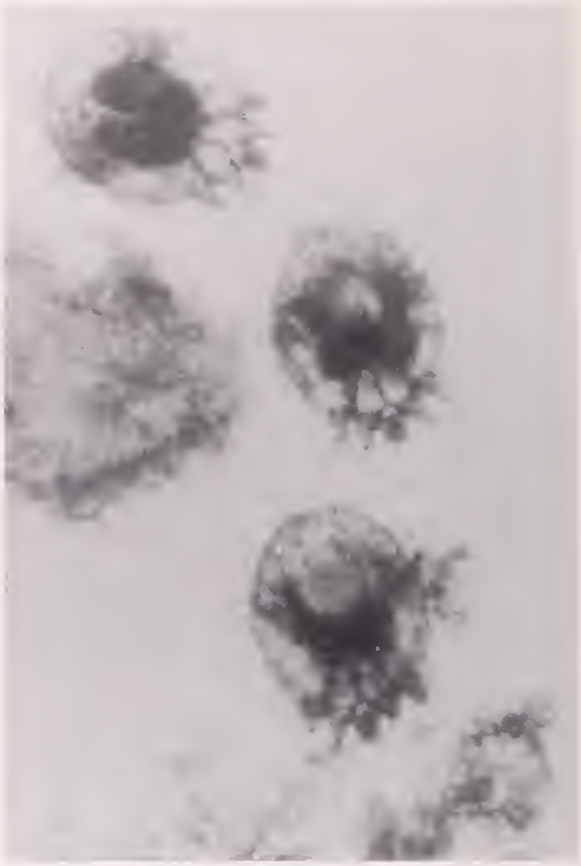

Figure 4.

Treatment is often difficult. Some cases respond to short courses of the usual antiscabetics — gamma benzene hexachloride (Kwell), chrotamiton (Eurax), benzyl benzoate or sulfur. Many patients, however, prove refractory, requiring long-term sequential therapy alternating different agents.[9] Low-dose, oral Methotrexate was used by one author in eight patients refractory to all topical medications with rapid resolution of lesions.[10]

The diagnosis of Norwegian scabies is easily established once entertained. Patients are invariably misdiagnosed as psoriasis or eczematous dermatitis. Other conditions with clinical resemblance include Pachyonychia Congenita, Keratoderma Blennorrhagica and Pityriasis Rubra Pilaris.[5]

Any institutionalized patient with such conditions should be examined for scabies if an outbreak occurs. Such institutional outbreaks can be prevented by increased awareness and earlier recognition of Norwegian scabies.

Summary

A case of severe scabies, considered to be Norwegian type, in a 45-year-old man with Down's syndrome is presented. He was treated for nine months with 10 per cent sulfur. Clearing of the condition has been maintained for over one year.

Editor's Note: Here are generic drugs and trade names (in parentheses) to which reference is made in this manuscript: gamma benzene hexachloride (Kwell) and chrotamiton (Eurax).

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Racquetball Players Suffer Eye Injuries

RACQUETBALL is an indoor sport of rapidly growing popularity among Americans of all ages and both sexes. It is now played by some seven million Americans.

But racquetball players have an unusual accident hazard. They hit themselves in the eye with their own racquets.

In a report in a recent issue of an American Medical Association publication, *Archives of Ophthalmology*, Marcos T. Doxanas, M.D., an eye specialist at Greater Baltimore Medical Center, reports on the growing influx of eye injuries among racquetball players in Baltimore, and presumably elsewhere.

During a three-month period in the winter of 1978-79, some 37 eye injuries from racquetball were recorded at the medical center, Doctor Doxanas said. Of these, 15 were caused when the player was hit in the eye by the ball. The other 22 were gashes or bruises over the brow that occurred when the player struck his (or her) own forehead with the racquet. There were five eye injuries among tennis players in the same period in which 37 racquetball players had eye injuries.

The player who gets hit in the eye by the ball often is in the front position in the court, and turns around to see his opponent return a shot. The ball is moving too fast to duck. Or the ball may be deflected from the side of the player's own racquet.

Sports glasses with tempered lenses and sturdy frame, or a sports eye guard, would have prevented all of the 37 injuries, Doctor Doxanas declared.

Pregnancy In Immunologic Thrombocytopenic Purpura Patients

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Immunologic thrombocytopenic purpura (ITP) and pregnancy are a rare combination. Current management with corticosteroids, splenectomy and platelet transfusions has virtually eliminated maternal mortality. Perinatal mortality, however, remains high (18 per cent).

One of the most common neonatal complications is cerebral hemorrhage. In order to prevent cerebral hemorrhage due to birth trauma, elective cesarean delivery of the thrombocytopenic fetus is suggested.

Fetal thrombocytopenia can be diagnosed by fetal scalp blood sampling during first stage of labor. Management of a case using this new method is described.

IMMUNOLOGIC thrombocytopenic purpura (ITP) is an autoimmune disorder in which the patient develops antiplatelet antibodies leading to excessive platelet destruction. Bleeding may occur in the skin, mucous membranes or from epistaxis and menorrhagia. The most serious complication is cerebral hemorrhage. This disorder frequently affects young females and is characterized by remissions and exacerbations of signs and symptoms. Chronic and recurrent episodes of bleeding lead to varying degrees of anemia. The spleen, liver and lymph nodes usually are not enlarged.

Pregnancy and ITP are an uncommon combination. Generally speaking, pregnancy does not affect the course of ITP; however, ITP is associated with significant fetal and neonatal mortality due to hemorrhagic complications. There is considerable difference of opinion whether these patients should be delivered vaginally or by cesarean section in order to diminish the risk of hemorrhagic complications in the newborn.[1-5] Ayromlooi[6] described delivery management of two patients with ITP based on fetal scalp platelet count. We recently managed a case in a similar manner.

Case History

PF, a 17-year-old, white female, gravida 1, was first seen at 20 weeks of gestation for prenatal care. Physical and laboratory examinations were unremarkable. ITP was diagnosed and confirmed by bone marrow examination at age 13. She had been treated with prednisone intermittently, but discontinued the medication as she became symptom-free. Her platelet count during this period ranged from 11,000 to 132,000/cu mm. Her platelet count on initial prenatal examination was 40,000/cu mm.

At 33 weeks of gestation she was admitted with symptoms of nausea and vomiting which were treated symptomatically. During this period her platelet count dropped to 4000/cu mm. She was transfused with four units of platelets and started on prednisone therapy. Her platelet count improved to 44,000/cu mm. in a few days.

At 40 weeks' gestation she was admitted in spontaneous labor. Her platelet count was 58,000/cu mm. Labor progressed normally. At four-cm cervical dilatation, membranes were ruptured artificially and a fetal scalp blood sample was obtained for platelet count. Fetal platelet count was reported as 98,000/cu mm. On the basis of this report vaginal delivery was planned. Six hours after admission she delivered a male infant weighing 3230 gm with an Apgar score of seven at one minute and nine at five minutes. Cord blood platelet count was 71,000/cu mm. The mother and baby did well postnatally and were discharged on the third day in good condition.

Diagnosis and Treatment

The autoimmune nature of ITP was suggested by the studies of Harrington *et al.*,[7] who produced thrombocytopenia in normal subjects by transfusing them with plasma from ITP patients. The antiplatelet antibodies are immunoglobulins of type G (IgG). The antibody-coated platelets are destroyed in the spleen.

The diagnosis of ITP is made by: (1) a platelet count of 75,000/cu mm. or less; (2) a bone marrow examination showing normal or increased numbers of megakaryocytes; and (3) exclusion of other conditions such as drug sensitivity, lymphomas, lupus erythematosis, sarcoid, infections, or transfusions which may be asso-

ciated with thrombocytopenia.[8] Tests are now available to detect platelet antibodies.

Few adults with ITP recover spontaneously. Corticosteroids frequently produce prompt improvement in platelet counts and general symptoms. Harrington[9] (1957) ascribed the beneficial effects of corticosteroids to: (1) improvement in capillary fragility; (2) inhibition of antiplatelet antibody formation; and (3) probable enhancement of the rate of platelet formation. However, corticosteroid effectiveness may result primarily from suppression of the phagocytic activity of the spleen. A trial of steroids sometimes produces a lasting remission requiring either low-dose steroid maintenance or none at all.

Platelet transfusions are of limited value because of short platelet survival time. They may be used to arrest temporarily an acute bleeding episode and prophylactically to prepare a patient for surgery.

For patients who do not respond or relapse after steroid therapy splenectomy appears to be a definitive form of therapy. Platelet counts and symptoms improve in 75 to 85 per cent of patients after splenectomy.[9,10] In pregnancy, if possible, splenectomy should be deferred until the postpartum period.

For relapses after splenectomy and treatment with high doses of corticosteroids, a trial of immunosuppressive drugs such as azathioprin (Imuran) and cyclophosphamide (Cytoxan) may be indicated.

Pregnancy in ITP patients

O'Reilly and Taber,[8] in a review of the literature until 1976, reported 84 patients with proven ITP who had 129 pregnancies resulting in 133 fetuses. There were three maternal deaths (four per cent) with the last one occurring in 1951 before the use of corticosteroids became established. Postpartum hemorrhage occurred in 26 per cent of the patients and correlated with thrombocytopenia. It seems prudent to avoid birth canal injuries in thrombocytopenic patients. Current management of ITP with corticosteroids, platelet transfusions and splenectomy has virtually eliminated maternal mortality.

Thrombocytopenia in the newborn is caused by placental transfer of antiplatelet antibodies (IgG) from the mother to the fetus. Infants of mothers who have had splenectomy and have normal platelet counts during pregancy may still develop thrombocytopenia due to transfer of maternal antibodies. Thrombocytopenia in the newborn is generally mild and self-limited. The nadir in platelet count may occur several days after birth. Occasionally, thrombocytopenia may require treatment with corticosteroids, while in severe cases plasmaphoresis may be used to remove maternal antibodies from the newborn. Splenectomy is rarely necessary. The most serious hemorrhagic complication in the newborn is cerebral hemorrhage.

In O'Reilly's review fetal mortality was 18 per cent. Neonatal thrombocytopenia and/or purpura occurred in 44 per cent of the newborns. The incidence was 35 per cent when the maternal platelet count at delivery was greater than 100,000/cu mm, and 69 per cent when the maternal platelet count was less than 100,000/cu mm. There was no difference in the incidence of hemorrhagic neonatal deaths in the two groups.

Jones, Asher, Rutherford *et al.*,[3] in 1977, reported obstetric performance of 29 patients with ITP. There were 43 live births and no maternal or perinatal deaths in this group.

Method of Delivery

There is considerable debate as to the safest method of delivery for these patients. Spontaneous vaginal delivery has been advocated.[3] Prophylactic forceps have been recommended to minimize the risk of fetal and maternal trauma.[1] Cesarean section at term regardless of the maternal platelet count[5] or with maternal platelet counts below 100,000[4] also has been suggested. Cesarean delivery was presumed to diminish the likelihood of cerebral hemorrhage in the newborn, but review of the literature does not support the protective effect of routine cesarean section over vaginal delivery. If, however, it is presumed that a thrombocytopenic fetus is at a greater risk of developing cerebral hemorrhage due to trauma of vaginal delivery than a nonthrombocytopenic fetus, then cesarean delivery of the thrombocytopenic fetus may be justified.

Thrombocytopenia in the fetus can be diagnosed during the first stage of labor, after the membranes have been ruptured, by fetal scalp blood sampling.

Because of the small number of pregnancies reported in ITP patients, superiority of one method of delivery over another has not been established. On a theoretical basis it is reasonable to assume that an antenatally-diagnosed thrombocytopenic fetus may benefit by an atraumatic cesarean delivery.

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Shorter Tuberculosis Treatment Time

An important advance in treatment of tuberculosis, shortening considerably the time required to cure the disease, is reported in a recent issue of an American Medical Association publication.

It is now possible to treat new cases of tuberculosis in nine months with a 97-per cent cure rate and a relapse rate of less than one per cent, according to William W. Stead, M. D., of the Arkansas Department of Health, Little Rock.

The new method utilizes a combination of two potent drugs, isoniazid and rifampin, observed Doctor Stead in an article appearing in *Archives of Internal Medicine.*

In addition to the shorter time lapse, it also is now possible to give the drugs less frequently. The cure rate is just as good when the schedule includes medication daily for only one month and then continuing at a modified dose for the other eight months, Doctor Stead said.

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A message from . . .

The President

MEDICINE

It's Not Just Care Of Patients Anymore

MEDICINE has changed dramatically since my graduation from medical school. Controls by many governmental programs determine more of our practice patterns today than our interpretation of signs, symptoms and management of the patient.

Examples of influence at the state level are reflected in the following observations:

(a.) *Insurance*—the delay in accepting the Aetna filing for physicians' malpractice required precipitous and urgent action by the State Medical Association to obtain some other alternative to the nearly 50-per cent increase the Aetna program demanded. Despite the efforts of your Association, many physicians chose another approach, and fragmentation of our insurance coverage has occurred. This may be highly desirable because in a competitive field we may be better served, but I worry about withdrawal of insurance coverage such as Maryland and numerous other states have experienced. Moreover, this entire problem has led to some physicians discontinuing practice. Our state currently needs all the physicians it can get.

(b.) *Workmen's Compensation* — in this field, an energetic and dynamic Commissioner has outlined a program of cooperation with a special committee I have appointed at her request. She has already demonstrated willingness and capability of streamlining the paperwork. We can hope the committee working with her can resolve some of the problems in the program. I, for one, am willing to give her my fullest cooperation.

(c.) *Welfare mess*—Despite all efforts, we have not been able to move the Commissioner one iota toward an evaluation of medical care for welfare recipients that will enable all physicians to participate in their management. I invite your attention to the fact the Attorney General has ruled we may not discuss fees. I am not talking about fees, but about participation of sufficient numbers of physicians so patients can be cared for without needless delay, and sufficient speciality involvement so that all types of illness can properly be managed by necessary referral. When I have a diabetic refused by four other physicians come to me in a limited practice of determatology, then proper care is not available. Perhaps by the time you read this, the drastic measures we may need to take will be outlined and your cooperation in them requested.

This report will not deal with Federal programs such as Medicare, PSRO, HSA and XYZA. Hopefully, the changing social and political environment will enable us to return to concentrating on health care of the public, an area in which we physicians in the United States exceed the rest of the world.

L. Walter Fix M.D.

L. Walter Fix, M. D., *President*

The West Virginia Medical Journal

Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

THE JCAH STORY: FLAK AND FACT

It's hard to find anyone that's caught more flak in recent times than the Joint Commission on Accreditation of Hospitals (JCAH). Some of the criticism is credible. JCAH recognizes that. It's working hard to effect significant changes in hospital survey and other procedures, including a new quality assurance standard.

In Chicago last July, the American Medical Association Board of Trustees told the AMA House of Delegates that it had undertaken a study of JCAH procedures in response to widespread criticism from the membership. A Board report outlined several recommendations it would make to the JCAH Commissioners, including streamlining of the accreditation process and placing major emphasis on improving the quality of the survey process in short-term, acute-care hospitals.

The House adopted a resolution calling for changes to eliminate repetitious administrative responsibilities and to assure due process to protect hospitals and medical staffs against arbitrary interpretations of the standards by on-site evaluators and JCAH personnel.

The West Virginia State Medical Association entered the picture during the December, 1980, interim meeting of the AMA House with a resolution originating in the Eastern Panhandle Medical Society and endorsed by the Association's House in August. It called upon the JCAH to be more selective in its inspection criteria that relate to quality of care.

Against a background of all the attention it's getting, maybe a general picture of the JCAH, as prepared by its staff, might be in order. The material's a bit long, but it has both educational and thought-provoking value. Here it is:

The Joint Commission on Accreditation of Hospitals is the leader of voluntary efforts to raise the quality of health care available to the American public. JCAH is a private, not-for-profit organization created by and composed of health care professionals. It was formed in 1951, and is governed by representatives from five national health care organizations — the American College of Surgeons, the American College of Physicians, the American Dental Association, the American Hospital Association, and the American Medical Association.

The central idea of voluntary accreditation is that health care facilities can and should voluntarily shoulder responsibility for evaluating their performance and assessing the quality of their patient care. The decision to seek accreditation reflects this sincere commitment to evaluate and improve the quality of care and services. Providers and practitioners have supported the voluntary approach to quality assurance activities by creating the JCAH to function as the health care field's internal conscience.

The JCAH, in its accreditation activity, assumes three primary responsibilities—the development of standards, the application of standards during the on-site survey, and the awarding of accreditation to facilities and programs that meet JCAH's high standards. To accomplish these tasks, the JCAH takes the role of evaluator and educator, rather than inspector or judge. Acting as a consultant, JCAH helps surveyed facilities identify strengths and weaknesses, and provides guidelines for improvement.

Accreditation standards are developed by health care professionals, advisory committees and consultants from other health care organizations. They then are carefully analyzed, reviewed by health associations, facilities and individuals throughout the country, and thoroughly tested before being approved by the physicians, dentists, and health care executives who serve on JCAH's governing body, the Board of Commissioners.

Survey teams vary in size and composition, depending on the type of facility being surveyed. A hospital team includes a physician, a registered nurse, a hospital administrator and a laboratory technologist. A psychiatric facility is surveyed by a psychiatrist, a psychologist, a social worker and other appropriate health care

professionals. Long-term care facilities are surveyed by a registered nurse. An ambulatory health care facility is surveyed by a team of two physicians and one administrator.

The JCAH survey is an information-gathering process that also is an educational and consultative experience. Joint Commission surveyors consult with the staff of a facility to help improve the patient-care setting. The surveyors report their findings to JCAH headquarters, where senior staff reviews the findings and forwards recommendations to the Accreditation Committee of the Board. Accreditation Committee members are selected from among the Board's practicing physicians, dentists, nurses and hospital administrators. The final decision on the accreditation status of a facility is made by the Accreditation Committee.

The information gathered at a JCAH survey and the contents of the JCAH evaluation report to the facility are considered confidential information. The Joint Commission will not release survey findings or recommendations to any source without the written consent of the facility's chief executive officer.

The JCAH conducts voluntary accreditation programs and educational activities for general acute care hospitals, adult psychiatric facilities, children's and adolescents' psychiatric facilities, drug abuse treatment and rehabilitation programs, alcoholism treatment programs, community mental health services, long-term care facilities, services for developmentally-disabled persons, and ambulatory health care organizations. Approximately 7,400 facilities, services, and programs hold JCAH accreditation including 75 per cent of the acute-care hospitals in the United States. The Joint Commission conducts some 4,500 surveys annually.

JCAH accreditation is a professional, national recognition awarded to facilities that are striving to provide the appropriate setting for high-quality health care.

PHYSICIANS IN ACTION

Some may object, but still another editorial relative to HSA activities seems proper, and perhaps necessary as far as the practicing physician is concerned, this month.

Regular *Journal* readers will remember some material called "A New Chance for Mischief" which appeared on these pages in the July, 1980, issue. It addressed a subject known as "appropriateness review."

That term describes an HSA and State Health Planning and Development Agency process to review specific institutional health services and home health services. The goal is to determine if the services meet the needs of the state's population "in accordance with established criteria."

As we wrote last July, the potential effect of appropriateness review is awesome. It will embrace virtually every procedure and type of care provided by physicians in a hospital and home health setting.

Obviously, a most critical feature of the process comes in the very beginning. That falls in the selection of criteria to be used to measure the appropriateness of pediatric, surgical, cardiovascular and many other types of care.

The HSA now has begun the criteria-setting process, and has held hearings in some three or four specialty areas. It has sought on a wide scale input and comment from hospital administrators and physicians. And the thrust of this update is to pay homage to the very substantial physician response.

At one recent evening hearing in Charleston, some 20 doctors were there in person. Comments from others provided a stack of paper at least two or three inches thick. That, in itself, was consistent with HSA activity which has threatened to bring a major paper shortage. But the key element, according to HSA staff, has been the nature of the comments.

"It's hard to take issue with most of these physicians," one HSA staff member said. "They say this is the way something should be, and here's why. They are coming in with solid, constructive thoughts based on their professional expertise and experience."

By and large, the physician input appears to be receiving favorable treatment. HSA staff has incorporated some of it in revised drafts of criteria, and has engaged in informal meetings with physicians along with receipt of comments in the hearing atmosphere and in other written form. Now, data related to criteria is being requested.

A further word of encouragement and advice to physicians now is in order. Make certain you stay in touch with the chief of medical staff at the hospitals where you practice to insure that you know when draft criteria in practice areas of interest and concern are being circulated. Then find time to review carefully those drafts — and comment on them.

One's philosophy of health planning is one thing. But as of now, it's here, and it's incumbent upon those providing health and medical care to protect the accessibility and quality of that care.

GENERAL NEWS

Minnesota Urologist Speaker For Annual Meeting

A Mayo Clinic urologist will speak on Friday morning, August 21, during the 114th Annual Meeting of the West Virginia State Medical Association August 20-22 at the Greenbrier in White Sulphur Springs.

Dr. William L. Furlow will talk on "Impotence with Regards to the Etiology, Diagnosis and Treatment," it was announced by Dr. T. Keith Edwards of Bluefield, Chairman of the 1981 Program Committee.

William L. Furlow, M. D.

The announcement of the paper to be given by Doctor Furlow is the first to be made by the Committee in presenting the 1981 convention plans.

Doctor Furlow is Consultant in the Department of Urology at the Mayo Clinic in Rochester, Minnesota, and Professor of Urology, Mayo Medical School. He will be the lead speaker for the convention's first scientific session, which this year will be held on Friday instead of Thursday as in the past.

As announced previously, the 1981 Annual Meeting, by House of Delegates action last August, is being shortened a day. It will be held on Thursday, Friday and Saturday, August 20-22, as noted above. The number of general scientific sessions has been reduced from three to two, and will be held on Friday and Saturday mornings with the elimination of the previous Thursday morning scientific session.

Doctor Furlow also will address the Association's Section on Urology at 2 P. M. on Friday. His topic will be "Urinary Incontinence with Regards to the Artificial Sphincter."

The Friday and Saturday morning scientific sessions also will include papers on the subjects of the handicapped, rehabilitation, bone tumors, malpractice and person-to-person communications.

AMA President Invited

Daniel T. Cloud, M. D., of Phoenix, Arizona, who will be installed as the President of the American Medical Association in July, has been invited to address the first session of the House of Delegates on Thursday.

A native of Rochester, Doctor Furlow was graduated from Carleton College in Northfield, Minnesota, and received his M. D. degree in 1953 from George Washington University School of Medicine. He interned at Mary Hitchcock Memorial Hospital in Hanover, New Hampshire, and was in private practice in Minnesota until 1962 when he entered a five-year fellowship in urology at the Mayo Clinic.

Doctor Furlow also earned an M. S. degree in Urology in 1970 from the University of Minnesota. His thesis was entitled "The Re-establishment of Ureteral Continuity Using a Mechanical Stapler: An Experimental Study."

He is a past Program Director of urology residents' education at Mayo Medical School: Chairman of the Urodynamics Devices Committee, International Urodynamics Society; and Chairman of the Publications and Awards Committee, North Central Section, American Urological Association.

Serving on the Program Committee with Doctor Edwards are Drs. John B. Markey of Charleston, Stanley J. Kandzari of Morgantown, Ruth C. Harris of Huntington, Jerome C. Arnett, Jr., of Elkins and Harvey D. Reisenweber, Martinsburg.

Council, House Sessions

The pre-convention meeting of the Council and the first session of the House of Delegates, as noted, will be held on Thursday instead of on Wednesday as has been the case in recent years.

Opening convention exercises will precede the Friday morning scientific program.

Various scientific sections and societies again will hold breakfast and other scientific meetings on Friday and Saturday; and the House will meet for the second and final time on Saturday afternoon.

The President's Reception, formerly held on Wednesday evening, tentatively is scheduled for Thursday evening. The Saturday evening reception for new officers will be held as usual. The latter will follow the second and final House of Delegates session. At that session, Doctor Markey will be inaugurated as President to succeed Dr. L. Walter Fix of Martinsburg.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. Gary G. (Ruth) Gilbert of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's convention.

More specific information relative to other general session topics and speakers will be provided in upcoming issues of *The Journal*.

Reservation forms normally provided by the Greenbrier at the beginning of the year were delayed, but were to be mailed to all Association members as soon as available. Those planning to attend the Annual Meeting are encouraged to give them their earliest possible attention.

Marshall's CME Program Approved By LCCME

Marshall University's School of Medicine has been authorized to offer continuing medical education (CME) credit by the Liaison Committee on Continuing Medical Education (LCCME), Dr. David K. Heydinger, MU Associate Dean for Academic/Clinical Affairs, announced.

"At its November meeting, the LCCME awarded us as a new program 'provisional accreditation' to grant both Category 1 (CME activity which is accountable and documentable) and Category 2 (all other kinds of CME activity) credit," the associate dean said.

In his letter of notification to the school, LCCME Secretary Richard S. Wilbur, M. D., noting that new programs could be approved for two years, wrote: "I am pleased that the Accreditation Review Committee recommended, and the LCCME approved, the full two years in the case of the Marshall University School of Medicine."

"From the outset, Marshall officials made it clear that one of the goals of this medical school would be to provide physicians practicing in the region with a quality continuing medical education program which would be easily accessible to them," Doctor Heydinger said. "This is a major step in fulfilling that goal," he added.

ACCME Formed

When the medical school applied for continuing medical education accreditation last spring, two CME accrediting agencies existed — the LCCME and one representing the American Medical Association (AMA)—and application was made to both, according to Charles W. Jones, Ph. D., Marshall's CME coordinator. Since the first of the year, the two groups have joined forces again and are known as the Accreditation Council for Continuing Medical Education (ACCME), which automatically will accept ac-

Issues facing the American Medical Association's House of Delegates were reviewed by West Virginia State Medical Association leaders prior to a meeting of the House during the AMA's Interim Meeting in San Francisco in December. Left to right in the left picture above are L. Walter Fix, M. D., Martinsburg, the Association President; and Frank J. Holroyd, M. D., Princeton, one of West Virginia's two Delegates in the AMA House. In the photo at the right are Jack Leckie, M. D. (left), of Huntington, an Alternate Delegate; and Stephen D. Ward, M. D., Wheeling, immediate Past President of the State Association and a member of the AMA's Council on Legislation.

creditations awarded previously by the separate groups, he explained.

Doctor Jones, assisted by a CME Advisory Committee composed of medical school faculty, representatives from the medical community, and representatives from the school's three teaching affiliates in Huntington, planned four highly successful CME conferences this fall, including one on geriatric medicine which the review committee observed during its site visit.

"While our own accreditation was pending, we were extremely fortunate to have the cooperation of St. Mary's Hospital, which served as the accrediting institution for our programs," Doctor Jones said. "It is this kind of community support that makes our job easier as we attempt to develop CME programs responsive to our physicians' needs," he added.

"Among the topics under consideration for CME conferences this spring are high blood pressure, use of blood anticoagulants, pediatric urology, surgical advances and problems of the aging," Doctor Jones said.

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Basic Histology, 3rd Edition, by Luis C. Junqueira, M. D.; and Jose Carneiro, M. D. 504 pages. Price $15.50. Lange Medical Publications, Los Altos, California 94022. 1980.

Handbook of Poisoning: Prevention, Diagnosis and Treatment, by Robert H. Dreisbach, M. D., Ph. D. 578 pages. Price $9. Lange Medical Publications, Los Altos, California 94072. 1980.

Current Obstetric and Gynecologic Diagnosis and Treatment, 3rd Edition, by Ralph C. Benson, M. D. 1001 pages. Price $21. Lange Medical Publications, Los Altos, California 94022. 1980.

Novak's Textbook of Gynecology, 10th Edition, by Howard W. Jones, Jr., M. D.; and Georgeanna Seegar Jones, M. D. 871 pages. Price $48. The Williams & Wilkins Company, P. O. Box 969, 300 Idlewild Avenue, Easton, Maryland 21601. 1981.

14 Speakers, 60 Exhibits Set For AAFP Assembly

Some 14 physicians and others will speak on a variety of subjects during the 29th annual Scientific Assembly of the West Virginia Chapter, American Academy of Family Physicians (AAFP).

The meeting, featuring 60 exhibits, will be held April 10-12 in Charleston at the Holiday Inn Charleston House.

J. David Blaha, M. D.

The program is approved for 16 Prescribed hours by the AAFP, and up to eight additional hours of Prescribed hours are obtainable through Roche Clinical Conferences, consisting of a multimedia teaching device, to be available during the meeting.

Speakers and topics for the opening session of the scientific program Friday morning, April 10, will be "Promoting Optimal Growth and Development in Children" — Paul H. Dworkin, M. D., Assistant Professor of Pediatrics, West Virginia University School of Medicine, Morgantown; "Current Immunization Concepts" — Ronica M. Kluge, M. D., WVU Associate Professor and Chairman, Division of Infectious Diseases, Morgantown; and Anthony G. DiBartolomeo, M. D., WVU Associate Professor of Medicine and Chief, Section of Rheumatology, Morgantown.

Friday afternoon speakers and topics will include "Indications for Total Hip Replacement" —J. David Blaha, M. D., WVU Assistant Professor, Department of Orthopedics, Morgantown;

Manuel Tzagournis, M. D.

Frank J. Ayd, Jr., M. D.

"The Female Jogger"—Thomas G. Wack, Jr., M. D., Family Physician, Wheeling: and "Ultrasound Uses in Medicine"—Charles H. McKown, Jr., M. D., Radiologist, Veterans Administration Medical Center, Huntington.

The Saturday morning schedule will begin with pre-session movies starting at 7:45. The films, a contribution of The Upjohn Company, are entitled "Perimenopausal Uterine Bleeding" and "Cold-Light Endoscopy."

Speakers for the Saturday morning scientific session will be Eileen P. G. Vining, M. D., Associate Director of Pediatric Seizure Clinic, Johns Hopkins University, whose subject will be "Grand Mal;" Robert L. Joseph, M. D., Ophthalmologist, Wheeling, "The Red Eye;" and Gilbert A. Friday, Jr., M. D., Clinical Associate Professor of Pediatrics, University of Pittsburgh, "Allergy Update."

Huntington Insurance Agent

Presenting papers Saturday afternoon will be Hugh L. Jobe, General Agent, American National Insurance Company, Huntington, "The High Cost of Dying and How to Avoid It;" Manuel Tzagournis, M. D., Acting Dean and Professor of Medicine, Division of Endocrinology and Metabolism, Ohio State University, Columbus, "Diabetic Metabolism and Oral Hypoglycemia Usage;" and Derrick L. Latos, M. D., Nephrologist, Wheeling Clinic, "Management of End State Renal Disease."

A cocktail party and banquet are scheduled Saturday evening.

Films on "No Real Pathology" and "Renal Hypertension / Bilateral Nephrectomy / Kidney Transplantation" will start the Sunday schedule at 7:45 A. M.

Beginning at 8:45 A. M., the speakers and topics will be "Laboratory Testing in the Physician's Office"—C. Norman Lisle, Manufacturer's Representative of Laboratory Equipment, General Medical, Huntington; and "Recognizing and Treating the Depressed Patient with Ludiomil" —Frank J. Ayd, Jr., M. D., Clinical Professor of Psychiatry, Department of Behavioral Medicine and Psychiatry, WVU Charleston Division; Director of Education and Research, Taylor Manor Hospital, Baltimore; and Editor, *International Drug Therapy Newsletter.*

Board Meetings

The assembly will conclude at noon on Sunday, at which time the Board of Directors will hold a luncheon meeting. (The Board also will have a dinner meeting at 6 P. M. on Thursday, April 9.)

The House of Delegates will hold a luncheon meeting on Friday at 11:50 A. M.

A champagne brunch and style show for ladies will be held on Saturday from 11:30 A. M. to 2 P. M.

For registration and other information, contact West Virginia Chapter, AAFP, 4760 Fire Creek Road, Charleston 25313; or telephone (304) 776-1178.

John B. Markey, M. D. (left), of Charleston, the West Virginia State Medical Association's President Elect, offers some thoughts regarding reference committee recommendations prior to a House of Delegates session during the American Medical Association's Interim Meeting in San Francisco in December. Listening to Doctor Markey is Harry S. Weeks, Jr., M. D., of Wheeling, who — as an Alternate Delegate — represented West Virginia in House discussions along with Frank J. Holroyd, M. D., of Princeton because of the illness of Delegate Richard E. Flood, M. D., of Weirton.

Lung Group Offers Promising Anti-Smoking Method

Nine out of 10 smokers say they would quit —if there were a workable way to do so. For these millions of would-be quitters, the American Lung Association has launched a new, workable way to stop smoking permanently.

This new method is packed into two self-help manuals that are now available for $5 per set from the American Lung Association of West Virginia (ALAWV). The first manual, "Freedom from Smoking in 20 Days," leads the individual through a nuts-and-bolts plan for kicking the habit in 20 days. The second, "A Lifetime of Freedom from Smoking," helps the individual reinforce and maintain a non-smoking lifestyle.

"Although most medical professionals will agree that smoking is a deterrent to physical well-being, many are reluctant to advise patients to stop smoking," said John C. Heavener, Jr., Executive Director of ALAWV.

"Part of the problem has been that the professional is sometimes at a loss when a patient asks for a viable method for quitting," Heavener continued. "We now have a method available which is very promising for the would-be quitter. And, since 95 per cent of the smokers who kick the habit quit on their own, a self-help program such as this is encouraging for proponents of preventive medicine."

New Approach Designed

"Freedom from Smoking" was developed cooperatively by the American Lung Association (ALA); its medical section, the American Thoracic Society, and the Congress of Lung Association staff. A team of physicians, psychologists, educators, and other specialists began in 1976 to research existing smoking cessation approaches. A new approach, combining some of the most effective aspects of existing methods, was then designed.

To test the effectiveness of the program, five lung associations were selected to use the manuals with smokers from their own communities. Testing began in May, 1979, and the final sample consisted of 1,237 smokers, who were followed up to one-, three-, six-, nine- and twelve-month intervals after receiving the manuals. Stringent research criteria were applied to evaluate the results, and a research firm was employed to analyze the findings.

Final results for the entire year have not yet been compiled, but preliminary data are encouraging. The findings seem to indicate that there is a cumulative effect of the materials; smokers keep going back to the manuals for help.

"The smoking cessation method outlined in the manuals is highly individualized and very workable," Heavener pointed out, "The 20-day program helps the individual understand reasons for smoking; realize what people, places and things trigger smoking; determine the personal smoking pattern, and devise an action plan for breaking that pattern."

To obtain a copy of "Freedom from Smoking" or to receive more information, contact the American Lung Association of West Virginia at (304) 925-6664 or P. O. Box 4445, Charleston 25304.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal).

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

March 20-21, Morgantown, Neuroscience Teaching Days

April 24, Morgantown, ENT Teaching Day

May 8-9, Morgantown, WV Radiological Society

May 14-15, Morgantown, Health Officers Seminar

(Continued on Next Page)

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, Upshur-Buckhannon Middle School, 3rd Thursday, 7-9 P. M. — March 19, "Diabetes Update," Douglas Jones, M. D.

April 16, "WVU Professional Day." (Four concurrent presentations for physicians, nurses, pharmacists and dentists. Topics and speakers to be announced.)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M. — February 11, "Management of Common Eye Problems," Samuel Strickland, M. D.

March 11, "Preventive Medicine," John Pearson, M. D.

April 8, "Venereal Diseases," Patrick Robinson, M. D.

May 13, "Peptic Ulcer Disease: Diagnosis, Treatment and Complications," William McMillan, Jr., M. D.

Oak Hill, Oak Hill High School (Oyler Exit, N 19), 4th Tuesday, 7-9 P. M. — February 24, "Common Infectious Diseases," Patrick Robinson, M. D.

March 24, "Interpretation and Management of Common Cardiac Arrhythmias," Maria Georgiev, M. D.

April 28, "WVU Professional Day." (See *Buckhannon* above.)

Welch, Stevens Clinic Hospital, 3rd Wednesday, 11 A.M.-1 P.M. — February 18, "Management of Mechanical Ventilation," William H. Gary, RRT.

March 18, "Problems of the Elderly," (A special mental health training program. Speakers to be announced.)

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A.M.-1 P.M. — March 25, "Behavioral Health: Recognition and Referral of Severely-Handicapped Problems." (A special mental health training program. Speakers to be announced.)

Williamson, Appalachian Power Company Auditorium, 1st Thursday, 6-8 P. M. — March 5, "Recognition and Management of Asthma," N. LeRoy Lapp, M. D.

April 2, "WVU Professional Day." (See *Buckhannon* above.)

Medical Meetings

Feb. 1-4—Am. Hospital Assn., Washington, D. C.

Feb. 11-14—Am. College of Nuclear Physicians, New Orleans.

Feb. 15-19—Am. College of Psychiatrists, Tucson, Ariz.

Feb. 22-25—Southeastern Surgical Congress, New Orleans.

March 7-11—Am. Academy of Allergy, San Francisco.

March 8-12—Society of Head & Neck Surgeons; and Am. Society for Head & Neck Surgery, Phoenix, Ariz.

March 23-25—Am. Society of Abdominal Surgeons, Tampa, Fla.

March 23-27—Am. Roentgen Ray Society, San Francisco.

April 4—WV Branch #41, Am. Med. Woman's Assn., Huntington.

April 6-9—Am. College of Physicians, Kansas City, Mo.

April 8-11—Tenn. Med. Assn., Knoxville.

April 10-12—WV AAFP Scientific Assembly, Charleston.

April 15-16—WV Chap., Am. Academy of Pediatrics, Huntington.

April 22-30—Am. College of Obstetricians & Gynecologists, Las Vegas.

April 24-25—WV Assn. of Blood Banks, Morgantown.

April 24-26—Pediatric Springfest (MCV Dept. of Pediatrics), Richmond, Va.

April 26-29—WV Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 30-May 2—WV Chapter, Am. College of Surgeons, White Sulphur Springs.

April 30-May 2—Am. Society of Clinical Oncology, Washington, D. C.

May 6-9—Va. Society of Ophthalmol. & Otolaryngol., Inc., Virginia Beach.

May 10-13—Am. Thoracic Society, Detroit.

May 10-13—Am. Lung Assn., Detroit.

May 10-14—Am. Urological Assn., Boston.

May 16-20—Ohio State Med. Assn., Cleveland.

June 5-6—WV State Society of Anesthesiologists, Morgantown.

June 7-11—AMA House of Delegates, Chicago.

Aug. 20-22—114th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.

Oct. 1-4—ASIM, New York City.

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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References: 1. Paulson GW: *NY State J Med 79:* 193-195, Feb 1979. **2.** Hallister LE Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology from Theory to Practice*, edited by Barchas JD, *et al.* New York, Oxford University Press, 1977, pp.134, 145. **3.** Damina EF. Antipsychotics phenothiazines, thioxanthenes, butyrophenones, and rauwolfia alkaloids, chap. 25, in *Drill's Pharmacology in Medicine*, ed.4, edited by DiPalma JR. New York, McGraw-Hill Book Company, 1971, p.476. **4.** Sovner R, DiMascia A Extrapyramidal syndromes and other neurological side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascia A, Killam KF. New York, Raven Press, 1978, p.1021. **5.** Donlon PT, Stenson RL *Dis Nerv Syst 37:* 629-635, Nov 1976.

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What better reason to choose Limbitrol for your patients with moderate depression and anxiety?

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Efficacy without a phenothiazine

Please see summary of product information on following page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated. Sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy.

Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

Endocrine: Testicular swelling and gynecomastia in the male; breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.

Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) — bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

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Your guide to patient management... when you decide medication is needed

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

- Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients
- Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

- An initial dosage of three tablets is recommended
- Dosage may be increased to six tablets or decreased to two tablets daily as necessary
- Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

- T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness
- Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom — insomnia
- Entire dosage h.s. to take maximum advantage of the sedative effect

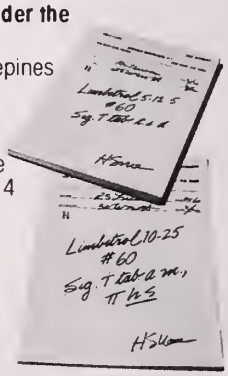
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



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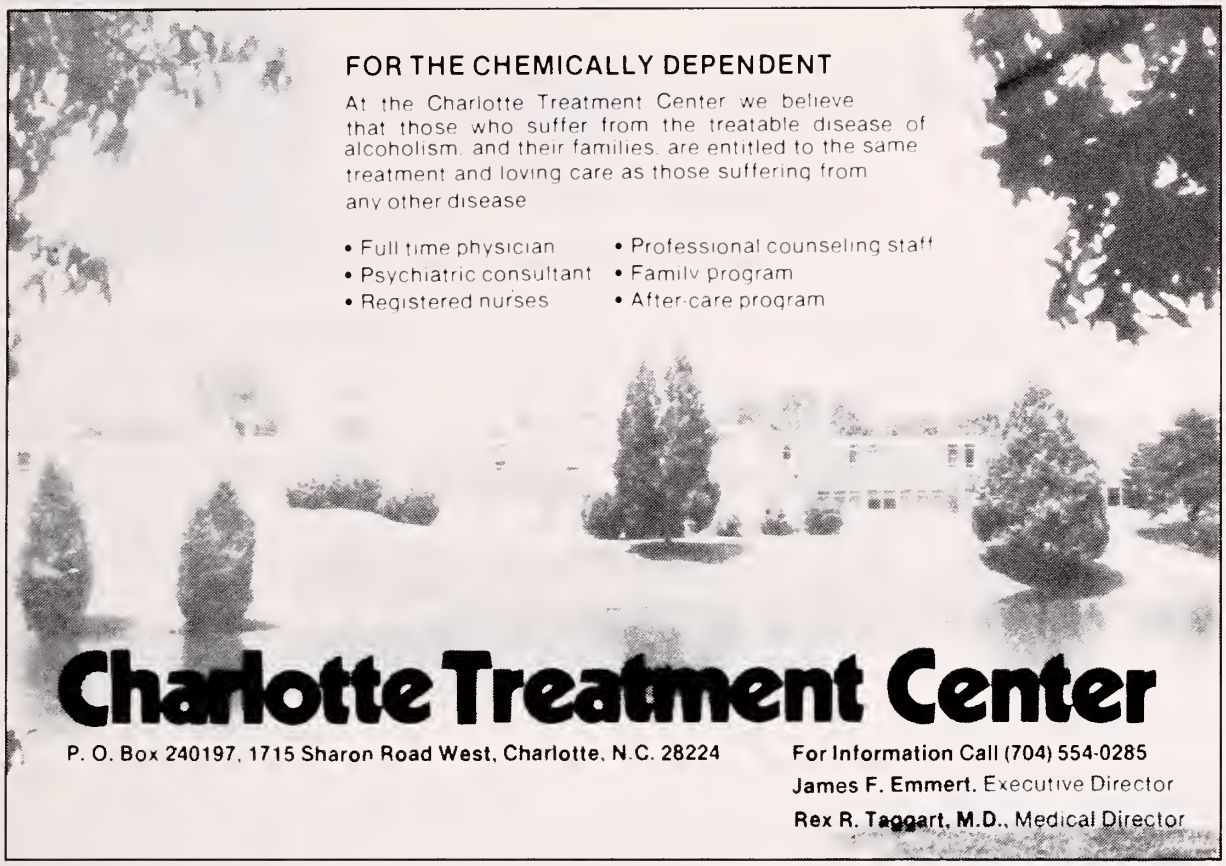

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WVU Medical Center
–News–

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Dr. Donald W. Cox Named Head Of Ob-Gyn

Donald W. Cox, M. D., has been named Chairman of the Department of Obstetrics and Gynecology in the West Virginia University School of Medicine.

Doctor Cox has been Acting Chairman of the Department since the resignation of Dr. Charles A. White last August. He joined the WVU faculty as an associate professor in 1977 following his retirement with the rank of Colonel from the Army Medical Corps.

Donald W. Cox, M. D.

Born in Carrollton, Ohio, he received his bachelor's degree from Mount Union College in Alliance and his medical degree from George Washington University where he also completed his internship.

He served his residency at Walter Reed Army Medical Center and had specialized study in reproductive endocrinology under a University of Washington fellowship.

Prior to coming to WVU, Doctor Cox was Chief of the Department of Obstetrics and Gynecology at Madigan Army Medical Center in Tacoma, Washington. He previously had served in the same capacity at Ft. Belvoir (Virginia) Army Hospital and as Assistant Chief at Gorgas Hospital in the Panama Canal Zone.

While at Madigan, he was an Associate Clinical Professor in the University of Washington's Department of Obstetrics and Gynecology.

He is a Fellow of the American College of Obstetricians and Gynecologists and the American Fertility Society, and is a member of the Central Association of Obstetricians and Gynecologists and the Association of Professors of Gynecology and Obstetrics.

His research interests are in reproductive physiology and gynecologic care. His scientific exhibit on "The Apparently Absent Vagina" was awarded first prize in 1973 in the Armed Forces District of the American College of Obstetricians and Gynecologists, and he was cited by the Surgeon General in 1977 for "outstanding qualifications in the field of obstetrics and gynecology and continued demonstration of exceptional professional ability."

Emergency-Trauma Surgery Service Effective

Even before the ambulance arrives, the emergency and trauma surgery team of WVU Hospital has begun preparations for quick action that can mean the difference between life and death for the critically injured man.

Alerted by the Emergency Medical Service (EMS), the team is already aware that the patient fell from a tractor and the vehicle ran over him. They know that he is having difficulty breathing because of massive chest injuries. His blood pressure is falling and he has a penetrating wound at the base of his neck.

"When the patient arrived, his blood pressure was very low and he was having difficulty in breathing," said Kevin Farrell, M. D., Assistant Professor of Surgery, who heads the Emergency and Trauma Surgery Service. "The anesthesiologists were ready in the emergency room and within 45 seconds to one minute he was intubated and his airway maintained."

Although University Hospital has provided emergency and extended treatment for accident victims since its inception, it has operated its emergency and trauma surgery service as a unit for little more than a year. The service specializes in care of accident patients, many of whom have multiple injuries. It also takes care of emergency surgery.

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Third-Party News, Views and Program Concerns

Disputed Medicare-Medicaid Items Cut In Bill

Scores of changes were made in the Medicare and Medicaid programs as a result of the recent passage of the Budget "Reconciliation" bill late in the congressional "lame duck" session.

Most of the controversial provisions affecting the medical profession were dropped from the bill as were the sweeping changes in hospital reimbursement that had been approved by the Senate.

Here are some of the major provisions that were enacted:

• Professional Standards Review Organizations — No PSRO will be required to make records available pursuant to a Freedom of Information Act request until one year after the entry of a final court order requiring such disclosure.

• Home Health—Unlimited home health care benefits would be made available under both Parts A and B; the three-day prior hospitalization requirement would be eliminated; the $60 deductible under Part B would be waived; occupational therapy would be added as a benefit criteria, and the state licensing requirement would be waived.

• Alcohol—Medicare will reimburse for inpatient alcohol detoxification services in free-standing facilities meeting health and safety standards.

• Tests — Diagnostic tests performed on an outpatient basis in the outpatient department of a hospital or a physician's office within seven days of a patient's admission to the hospital would be reimbursed in full.

• Rehabilitation—Permits reimbursement under Medicare for comprehensive outpatient rehabilitation facilities under Part B based on the costs incurred in furnishing covered services, including: physicians' services, nursing care, physical therapy, occupational therapy, speech pathology, respiratory therapy, social and psychological services, prosthetic devices, drugs and biologicals, supplies, appliances, equipment, and other items which are necessary for the rehabilitation of the patient.

• Outpatient Surgery — Medicare reimbursement is authorized for the facility cost of ambulatory surgical centers where the ambulatory surgical center has agreed to accept assignment. This reimbursement would be available in situations where the center performed certain procedures that are considered "safe" and "appropriate" in an outpatient setting. The physician's reasonable charge for performing the procedures would be reimbursed at 100 per cent, providing the physician also agrees to accept assignment. A physician who accepts assignment will receive additional Medicare reimbursement for performing certain listed surgical procedures in his or her office.

• Optometrists — Coverage for optometrists' services to aphakic patients will be provided under Medicare. A study will be conducted to determine whether Medicare should reimburse optometrist services to cataract patients.

• Radiologists and Pathologists—The special 100 per-cent reimbursement with no deductible, for services to hospital inpatients by radiologists and pathologists would be limited to those who agree to accept assignment for all services furnished to hospital inpatients.

• Teaching Hospitals—Alternate forms of reimbursement for professional services rendered by physicians in teaching hospitals are provided. Hospitals having approved teaching programs may elect to be paid for the services of those programs on a reasonable cost basis providing that all physicians involved in the teaching program elect to be paid on such a basis. Alternatively, physicians could elect to receive reimbursement on the basis of reasonable charges under Part B if conditions are met.

• Rural Hospitals—The HHS Secretary would be authorized to apply Medicare standards to rural hospitals in a flexible manner to take into account the availability of qualified personnel, etc.

Obituaries

JAMES H. WOLVERTON, JR., M. D.

Dr. James H. Wolverton, Jr., of St. Petersburg, Florida, formerly of Keyser, died on December 22 in a St. Petersburg hospital. He was 67.

A family physician, Doctor Wolverton practiced in Piedmont and Keyser from 1939 until going to Florida in 1970. He continued to practice in Florida until his death.

Born in Balmorhea, Texas, he was a graduate of Potomac State College and West Virginia University, and received his M. D. degree in 1938 from the Medical College of South Carolina.

Doctor Wolverton was President of the Potomac Valley Medical Society in 1947, a former member of the Mineral County Board of Education, and a World War II Air Force veteran.

He was a member of the Potomac Valley Medical Society and the West Virginia State Medical Association.

Survivors include the widow; a son, Richard E. Wolverton of St. Petersburg; a daughter, Mrs. Betsy DiPilato of Sicily, Italy; three sisters, Mrs. Ruth Cuppett of Petersburg, Mrs. Kathryn Carvey of Keyser and Mrs. Harriet Hackney of Charleston, and a brother, Dr. William R. Wolverton of Fayetteville, N. C.

* * *

ELMER F. LOWRY, M. D.

Dr. Elmer F. Lowry of Ashton, Mason County, died January 8 in the Pleasant Valley Nursing Care Unit in Point Pleasant. A native of Springdale in Fayette County, Doctor Lowry was 93.

A veteran of 30 years of service with the U. S. Navy Medical Corps, Doctor Lowry retired with the rank of Captain in 1947, and for several years owned and operated a farm at Ashton. He received his M. D. degree from the University of Louisville in 1917.

Burial was in the Arlington, Virginia, National Cemetery. Survivors include a son, Dr. Elmer F. Lowry, Jr., of Ashton, formerly of Washington, D. C., who also is retired; a sister, Mrs. Nannie Sims of Gaithersburg, Maryland, and a brother, Charles Lowry, of South Charleston.

County Societies

BOONE

The Boone County Medical Society met on December 13 for its annual Christmas dinner and election of officers. They are Drs. Probhand Chinuntdet, President; Robert B. Atkins, Vice President; and Manuel T. Uy, Secretary-Treasurer, all of Madison.—Manuel T. Uy, M. D., Secretary-Treasurer.

* * *

McDOWELL

The McDowell County Medical Society met on December 5 following the annual Christmas dinner of the Society.

New officers were elected.

Dr. Joseph C. Ray of Welch announced that he would be retiring soon and moving to Louisville, Kentucky. Dr. Ross M. Patton of Gary, the newly-elected President, thanked Doctor Ray on behalf of the Society for his support. — Muthusami Kuppusami, M. D., Secretary.

* * *

FAYETTE

The Fayette County Medical Society met in December at Oak Hill Hospital. New officers were elected with Dr. Daniel B. Doyle of Oak Hill named as President.—Honorato M. Aguila, M. D., Secretary.

* * *

MARION

The Marion County Medical Society met on November 25 at the Fairmont Field Club.

The guest speaker was Dr. E. Noel McIntosh of the Department of Obstetrics and Gynecology at the West Virginia University Medical Center.

The Society met again on December 18 at the Field Club in a joint meeting with the Marion County Bar Association.

Our guest speaker was John E. Jones, M. D., Dean of the WVU School of Medicine. Dean Jones spoke on graduate medical education in West Virginia and how it relates to recent studies pertaining to medical manpower in the United States.—William L. Mossburg, M. D., President.

* * *

PARKERSBURG ACADEMY

Dr. William N. Walker of Clarksburg was the guest speaker for the meeting of the Parkersburg Academy of Medicine on December 10 at the Parkersburg Holiday Inn.

(Continued on page xviii)

Book Review

REVIEW OF MEDICAL PHYSIOLOGY, 9TH EDITION — by William F. Ganong, M. D. 618 pages. Price $14. Lange Medical Publications, Los Altos, California 94022. 1979.

The preface states: "This book is designed to provide a concise summary of mamalian and, particularly, of human physiology which medical students and others can supplement with readings in current texts, monographs, and reviews." This statement describes the exact purpose of this review book. After using it to prepare for the FLEX, I have found it more than adequate, but complete enough to catch up quickly on forgotten details of medical school physiology.

It is not meant to replace Best and Taylor's excellent text, but to provide an inexpensive review as noted above. — Daniel F. Miller, M. D., and Registered Pharmacist.

THE HUMAN PATIENT — Naomi Remen, M. D. 264 Pages. Price $10.95. Anchor Press/Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10017. 1980.

This slim, hard-covered book is half way between a textbook and "a good read." The chapters are entitled: "What's Right with the Patient?," "Human Nature and Human Health," "A Healthy Way to Have a Disease," "Clock Time and Lifetime," "Free Choice," and "Collaborative Caring."

As can be surmised from these titles, the book describes an approach to patients that emphasizes their strengths and their participation in learning to cope with their diseases. There are a number of memorable vignettes of the author's experiences with her patients that add point and poignancy to what she says. She clearly has a good deal of shrewd empathy.

I recommend this book for both physicians and medical students, and also for other health professionals—not necessarily to buy it for themselves, although the quiet and understated authority of the author will encourage the reader to return to the book and to re-read it. The book is like a friend who helps you to feel good about yourself, who encourages you to take chances in reaching out to help others, and who tells you how to do so successfully.—R. John C. Pearson, M. B.

CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by S. pneumoniae (formerly D. pneumoniae)
Otitis media caused by S. pneumoniae (formerly D. pneumoniae) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY. Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS. It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d	body weight < 20 kg (44 lbs) 125 mg q.i.d.
		body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity

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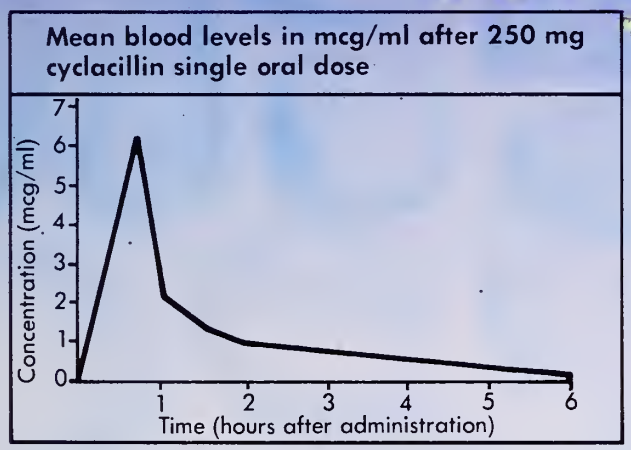
Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



- Rapid, virtually complete absorption from GI tract
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*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

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more than just spectrum

NEW NAME

Doctor Walker, Chairman of the State Medical Association's Physicians Services Committee, spoke on the "Impaired Physicians Program."

Dr. S. William Goff of Parkersburg noted that the program of the Mid-Ohio Valley Continuing Medical Education Committee would be expanded in 1981 and that expenses would increase considerably.

New officers were elected with Dr. A. Paul Brooks of Parkersburg named as President.

Dr. Michael J. Lewis of St. Marys, a member of the State Medical Association's Council, gave a report on the previous two meetings of the Council.—Bill M. Atkinson, M. D., Secretary-Treasurer.

PHYSICIAN'S ASSISTANT

New position in expanding Orthopedics Department at the West Virginia University Medical Center. Responsible for assisting physician-in-charge with Orthopedic inpatients and outpatients. Applicants must be graduates of an approved Physician's Assistant program and meet state and national certification requirements. Send resume and salarv requirements to: Jack Podeszwa, Personnel Officer, West Virginia University, Morgantown, WV 26506. An Equal Opportunity/Affirmative Action Employer M/F.

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WANTED—Mountaineer Family Health Plan, a pre-paid primary care program needs a general/family practitioner or internist for ambulatory patient care. Licensure in West Virginia required. Financial arrangements are negotiable. Call or write Douglas E. Tolbert, Executive Director, 228 Mellon Street, Beckley, WV 25801. Telephone: (304) 252-8551.

FOR SALE — Office X-Ray. Complete 100 Milliamperes Keleket with all dark room equipment. Telephone: (304) 748-5110.

PHYSICIAN WANTED—An experienced practitioner to add to and work with an established group in Charleston. Excellent working conditions with regular hours and minimal night work. Liberal vacation, sick leave and holiday program. Pension plan, Social Security, and professional liability insurance coverage. Apply Charles E. Staats, M. D., 123 West Washington Street, Charleston, WV 25302 —Telephone: (304) 346-0381.

WANTED—Board eligible or certified Obstetrician/Gynecologist needed for small town of 6,000. Modern hospital with latest equipment to work with available. Financial arrangements and office space negotiable. Contact J. N. Vallandingham, Administrator, Summers County Hospital, Hinton, WV 25951. Telephone: (304) 466-1000.

WANTED—Emergency Physician to join 3 others in staffing ER with 12-14,000 annual visits in small rural community. Good salary with full benefits package including paid vacations, paid educational leave, and educational allowance. Clean mountainous environment. Contact Alan Fuller, Memorial General Hospital Assoc. Inc., 1200 Harrison Avenue, Elkins, WV 26241; Telephone: (304) 636-2900.

WANTED—Two emergency service physicians to join a four-member group on a private fee for service practice basis at a 215-bed community hospital located in Princeton, West Virginia. Contact Tom Benoit, Associate Administrator, Princeton Community Hospital, Princeton, WV 24740. Telephone: (304) 425-2434.

FAMILY PRACTICE OPENINGS — Pendleton County offers the rural medical practice challenge you are seeking. Located in the picturesque Eastern Panhandle town of Franklin are a group of active and interested businessmen and citizens committed to recruiting and financially supporting the establishment of new practices. This opportunity is worth exploring! Contact George I. Sponaugle, President of Pendleton Industries, Franklin, WV 26807. Telephone: (304) 358-2337.

PSYCHIATRIST WANTED—To fulfill the critical need in West Virginia Mental Institutions. Qualification: Board eligibility, with a desire to become Board Certified. MUST BE DEDICATED, ability to take the initiative, be productive, and work harmoniously with all personnel. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

WANTED—Physician to fulfill the critical needs in West Virginia's State Institutions. Qualification: A permanent license to practice medicine in West Virginia and three years of full-time paid experience. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

WANTED—A physician for the twin towns of Harpers Ferry and Bolivar, West Virginia—about 8 miles from Charles Town, where there is a hospital. Serving a population of 1500. Twin towns located in scenic mountain area, good fishing and Harpers Ferry National Park—approximately 1½ hours' drive from Washington, D. C. Contact Mr. Reid V. Geronimo, President Bolivar Civic Association, Route 1, Box 5, Harpers Ferry, WV 25425. Telephone: (304) 535-6528.

EMERGENCY ROOM PHYSICIAN—Immediate opening for full-time career-oriented Emergency Physician needed for 250 bed, newly built Bluefield Community Hospital, to join the established Emergency Medical Group, Inc. Flexible schedule, salary negotiable, group offers pension plan, life and disability insurance, medical and liability insurance, vacation and educational benefits. Please contact Surrinder K. Chopra, M.D., Chief, Emergency Medicine, Bluefield Community Hospital, Bluefield, WV 24701. Telephone: (304) 327-2511.

WANTED—Young physicians for growing town with diversified industry. Major coal expansion. West Virginia Wesleyan College. Good place to live. Town of over 7,000. Rural setting. Pleasant surroundings easily accessible to multiple recreation areas. Modern hospital. Cooperative medical staff. Openings for several family practitioners preferrably interested in obstetrics; pediatrician and Ob-Gyn specialist. Contact Joseph B. Reed, M.D., 93 West Main Street, Buckhannon, WV 26201. Telephone: (304) 472-6041.

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For recurrent attacks of urinary tract infection in women

Bactrim™ DS Double Strength Tablets

Each tablet contains 160 mg trimethoprim and 800 mg sulfamethoxazole.

Just one tablet b.i.d. for 10 to 14 days

- Action at urinary/vaginal/lower bowel sites helps eliminate reservoirs of infecting organisms
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- Low incidence of bacterial resistance in community practice
- Convenient *b.i.d.* dosage provides day-and-night antibacterial control
- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older.

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Please see back cover.

Her next attack of cystitis may require

the Bactrim™ 3-system counterattack

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Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

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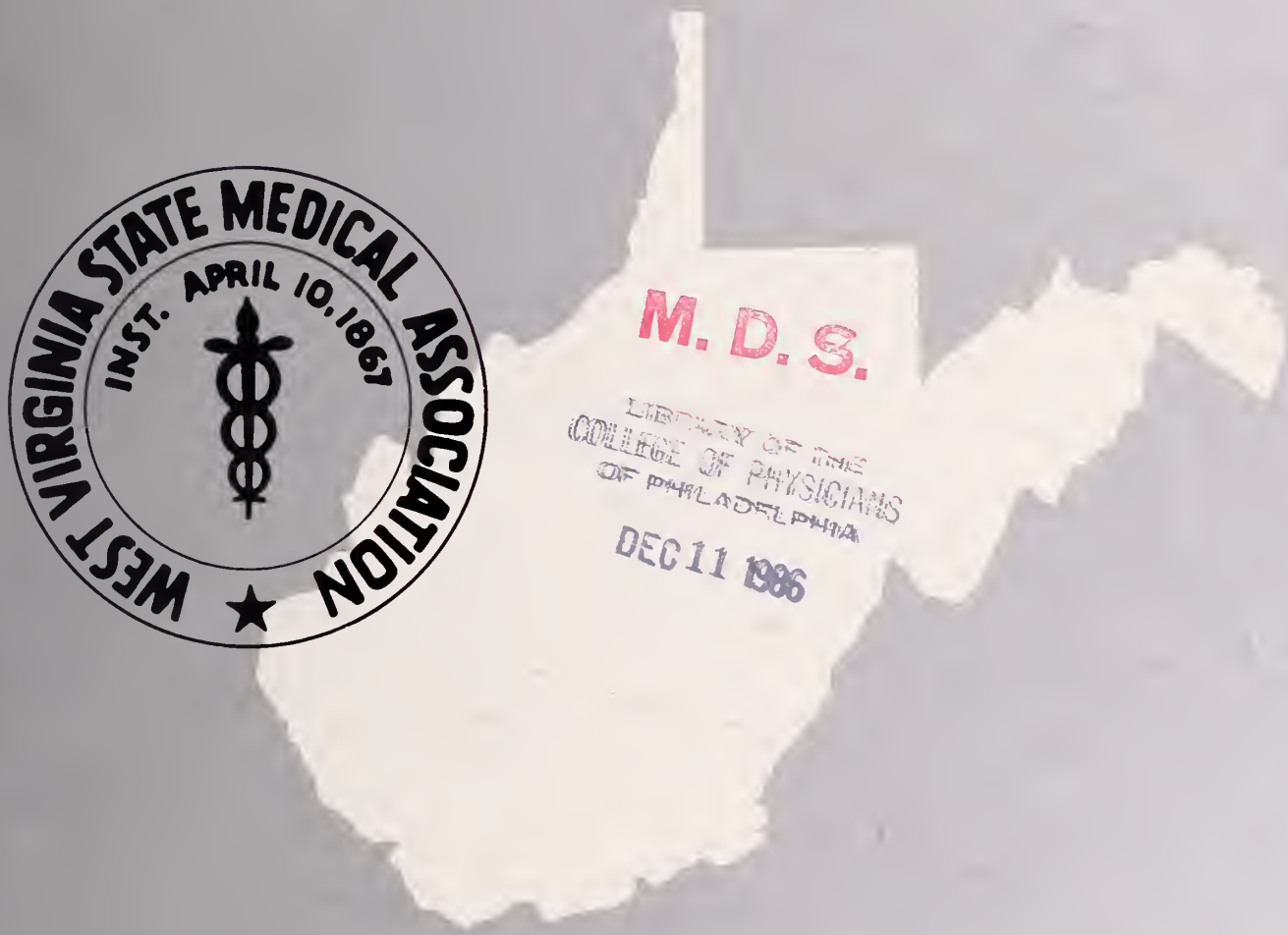
The West Virginia Medical Journal



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In April and May:
Infection Control in Hospitals

114th Annual Meeting, The Greenbrier
August 20-22, 1981

Volume 77 Number 3
March 1981

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche) ⓥ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500. Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50, available in trays of 10.

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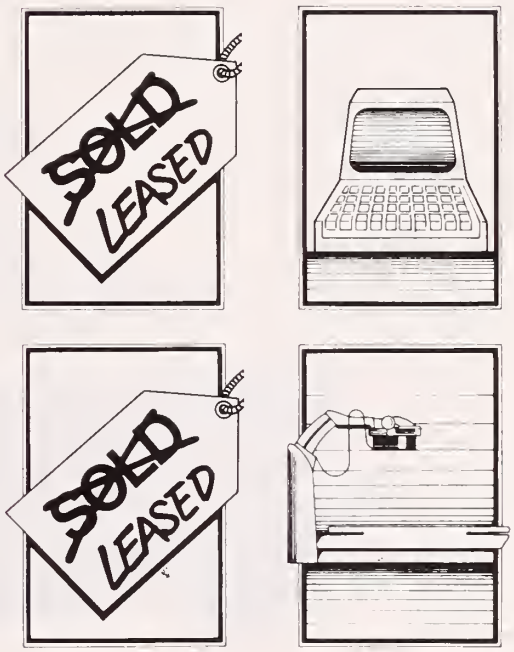

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1 Florey HW, Chain E, Heatley NG, et al *Antibiotics*. London, Oxford University Press, 1949, p 2

2 Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979 The clinical significance of *in vitro* data is unknown

3 Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34 Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

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‡Not all isolates may have been tested using both discs

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INDICATIONS

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected (See Important Note below)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci Group A beta-hemolytic streptococci and penicillin G-resistant and penicillin G-sensitive staphylococci If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing approximating the high percentage of resistant staphylococcal isolates found in the hospital For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing Such strains of staphylococci have been capable of producing serious disease in some instances resulting in fatality Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently) Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus

CONTRAINDICATIONS

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication

WARNING

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e g pressor amines, antihistamines, and corticosteroids

Safety for use in pregnancy has not been established

PRECAUTIONS

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics If superinfection occurs during therapy, appropriate measures should be taken

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy

ADVERSE REACTIONS

Gastrointestinal disturbances, such as nausea epigastric discomfort, flatulence, and loose stools, have been noted by some patients Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered Eosinophilia with or without overt allergic manifestations, has been noted in some patients during therapy

USUAL DOSAGE

Adults 250 mg q 6h

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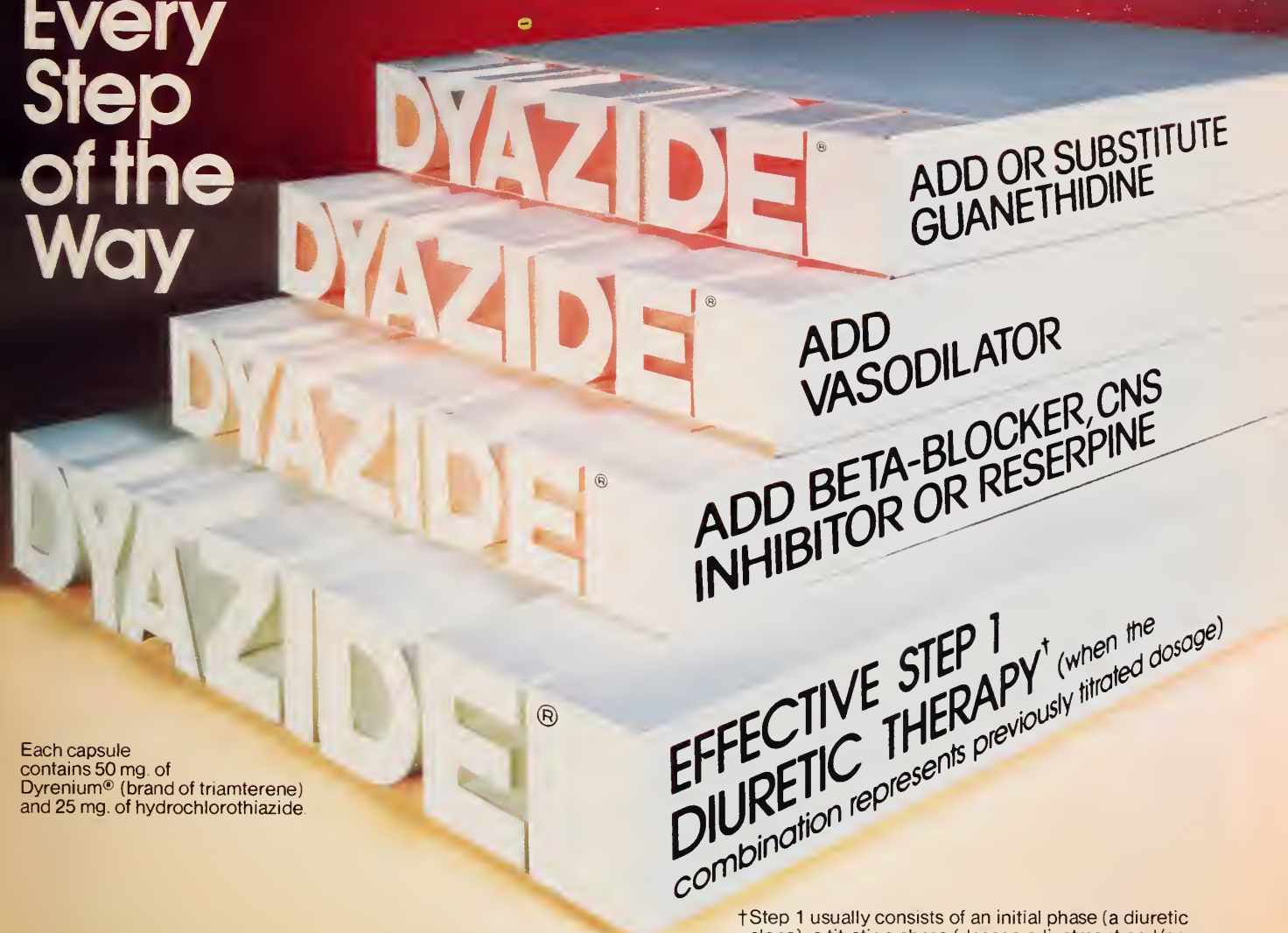

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Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

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Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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Inventor

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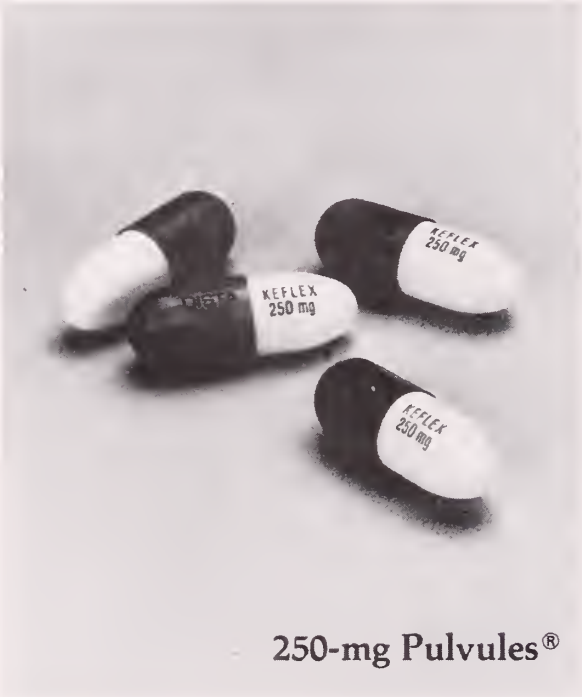

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The West Virginia Medical Journal

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Epidemiology Of Severe Respiratory Syncytial Virus Infections In Huntington, West Virginia*

ROBERT B. BELSHE, M. D.
LEE P. VAN VORIS, M. D.
MAURICE A. MUFSON, M. D.
LYNDA HYLER, R. N.

The epidemiology of severe respiratory syncytial (RS) virus infections in Huntington, West Virginia, was investigated during one epidemic season, January through July, 1979. RS virus was the predominant pathogen isolated from children less than one year of age admitted to the hospital with pneumonia, bronchiolitis or bronchitis. Thirty-nine per cent of 86 infants with these illnesses had RS virus infection. Infants less than six months of age were most severely and more frequently affected by RS virus infection than older infants, which is a unique feature of this infection. The risk of hospitalization during the first year of life was estimated to be one in 31 infants.

An effective vaccine to prevent serious RS virus infection would have wide use and could reduce significantly morbidity from respiratory disease in early childhood.

Respiratory syncytial (RS) virus, the major respiratory pathogen of infants, occurs worldwide. In industrialized countries, most studies of RS virus infection have been conducted among populations residing in large cities. The epidemiology of RS virus infection in the United States has been investigated mainly in inner city populations.[1] By contrast, epidemiologic studies of RS virus infection in medium-sized urban communities have been conducted infrequently. Investigators in England observed that infants residing in small cities and rural towns were less likely to be hospitalized with RS virus illness than infants living in inner cities.[2]

We undertook prospective epidemiologic surveillance of acute respiratory tract illness among infants living in Huntington, West Virginia, in order to study the epidemiology of RS virus infection among infants in one medium-sized community and to identify the occurrence and severity of RS virus infections among infants who required hospitalization for acute lower respiratory tract disease. We conducted this study during a seven-month period from January 1, 1979, through July 31, 1979, when RS virus was epidemic in the community.

Methods

Hospital Surveillance. Huntington, West Virginia, with a population of 70,000, is the major city in Cabell County and surrounding areas. The total population of this area is approximately 100,000. Children residing in Huntington and environs derive their in-patient care either at Cabell-Huntington Hospital or St. Mary's Hospital, both located in Huntington. On a daily basis at each hospital, we monitored admissions of children aged four years or younger. Children in this age group admitted with a diagnosis of acute respiratory-tract illness were tested for viral infection by procedures for isolation of virus from nasal and pharyngeal secretions. All nasal and pharyngeal swabs were obtained for virus isolation within 24 hours of admission. The swabs were agitated in chilled veal infusion broth which was immediately transported to the

*With the Huntington Cooperative Pediatric Research Group: Joseph W. Werthammer, M. D.; Gilbert A. Ratcliff, M. D.; Farooq H. Siddiqi, M. D.; Richard L. Curry, M. D.; M. Bruce Martin, M. D.; Thomas G. Folsom, M. D.; and Ruth C. Harris, M. D.

laboratory for prompt inoculation onto tissue culture cells. Clinical data was abstracted from the medical record.

Isolation of Viruses. Swab samples were inoculated onto replicate tissue cultures of HEp-2, WI-38 and primary rhesus monkey kidney tissue culture cells. Swab fluid was absorbed to the cells for 90 minutes at room temperature prior to feeding with Minimum Essential Medium containing two per cent agamma calf serum. The inoculated tissue culture cells were incubated at 33.5°C, and at 48- to 72-hour intervals they were examined for the presence of cytopathic effect; the rhesus monkey kidney cells were overlaid at weekly intervals with a suspension of fresh guinea pig red blood cells to detect the presence of hemadsorbing viruses.[3] RS virus isolates were recognized by their characteristic cytopathic effect in HEp-2 tissue culture.[4] When no cytopathic effect was observed in HEp-2 cultures throughout 14 days of incubation, the negative cultures were passaged into fresh HEp-2 cells for optimal recovery of RS virus. An additional seven per cent of RS virus isolates were detected in this manner. Other viruses were identified either by specific cytopathic effects or by hemadsorption-inhibition procedures.

Results

The first isolate of RS virus was recovered from an infant admitted to the hospital on January 15, 1979. During the subsequent two months the number of infants and children hospitalized with pneumonia, bronchiolitis or bronchitis, and the number of infants and children shedding RS virus increased in parallel, signaling the occurrence of a RS virus outbreak (Figure 1). Hospitalized during this study were 139 children diagnosed as having pneumonia, bronchiolitis or bronchitis. Additionally, 32 infants and children were admitted with other respiratory illnesses including croup (17 cases), asthma or wheezing (nine cases), shortness of breath (four cases), and upper respiratory infection (two cases). Tested for viral shedding were 129 of the 139 infants and children with pneumonia (103 cases), bronchiolitis (22 cases) or bronchitis (14 cases) and all 32 of the infants and children with other respiratory illnesses.

RS virus was the principal etiologic agent isolated from infants and children with pneumonia, bronchiolitis and bronchitis, but it was not the etiologic agent associated with croup or other respiratory illness. RS virus was isolated from 37 (29 per cent) of the 129 children tested with pneumonia, bronchiolitis or bronchitis. The peak of pneumonia cases occurred in March and corresponded to the peak of RS virus isolations. Of the 37 children shedding RS virus, pneumonia was diagnosed in 25 cases, bronchiolitis in 11 cases, and bronchitis in one case. Only six other viruses were recovered from patients with pneumonia, bronchiolitis or bronchitis: these included two adenoviruses and one isolate each of parainfluenza type 3, parainfluenza type 1, herpes simplex and cytomegalovirus.

None of the 32 children diagnosed as having croup, asthma or wheezing, shortness of breath or upper respiratory infection shed RS virus. Viruses isolated from the respiratory secretions of croup patients included adenoviruses (three cases), parainfluenza type 1 (one case), and parainfluenza type 2 (one case). Viruses were not isolated from any patient diagnosed as having asthma or wheezing, shortness of breath or upper respiratory infection.

Most of the infants with RS virus infection were less than six months of age (Figure 2). Of the 72 children in this age group admitted with respiratory illness during the seven-month study period, 25 (35 per cent) shed RS virus. By contrast, only 12 (18 per cent) of 67 children older than six months had evidence of RS virus infection as detected by isolation of the virus. The respiratory tract diagnoses in the age group less

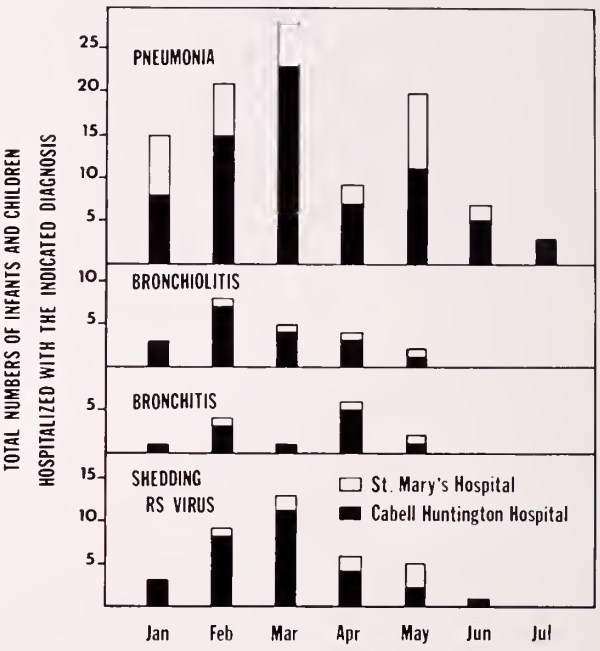

Figure 1. Temporal occurrence of severe respiratory illness (pneumonia, bronchiolitis and bronchitis) in infants and children less than 4 years old admitted to Cabell-Huntington Hospital or St. Mary's Hospital between January 1, 1979, and July 31, 1979. The number of infants and children shedding RS virus is shown for each month of the study.

than six months were the same as the study population as a whole.

Nearly one half of children with RS virus infection were under two months of age at the time they became severely ill, and 68 per cent of children shedding RS virus were less than six months old (Table). Four infants with RS infection required mechanical ventilation; each of these infants had other illnesses, including one with amyotonia congenita, one with severe bronchodysplasia and two with a history of premature birth and respiratory distress syndrome. The duration of hospital stay for the four infants who required mechanical ventilation averaged 27 days. Two deaths occurred among these four infants. No other deaths occurred in the study population.

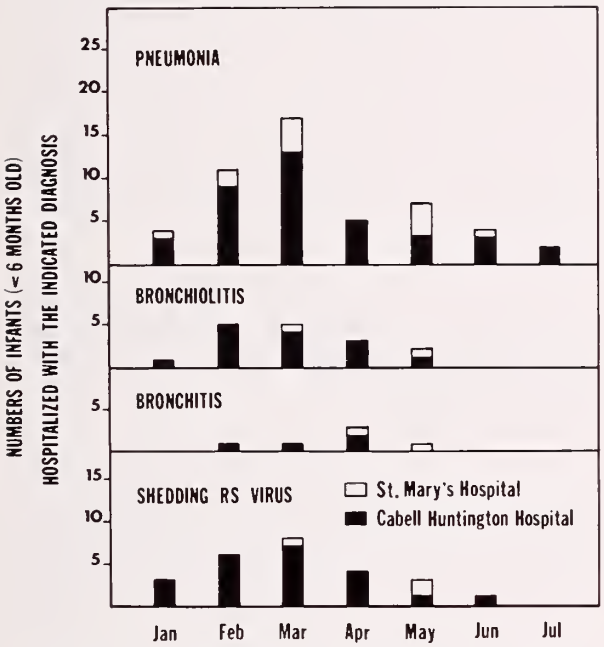

Figure 2. Temporal occurrence of severe respiratory illness (pneumonia, bronchiolitis and bronchitis) in infants less than 6 months old admitted to Cabell-Huntington Hospital or St. Mary's Hospital between January 1, 1979, and July 31, 1979. The number of infants shedding RS virus is shown for each month of the study.

Other illnesses or history of severe respiratory disease were present in six of the 33 children with RS virus infection who did not require mechanical ventilation. These included one case each of low birth weight with respiratory distress syndrome, high birth weight, pulmonary valvular stenosis, previous episodes of wheezing, severe iron-deficiency anemia, and family history of multiple sudden infant deaths.

An estimate of the rate of severe RS virus lower respiratory tract disease among infants in the Huntington area was obtained by dividing the number of live births into the number of RS virus illnesses detected during this winter epidemic. From the period September 1, 1978, to September 1, 1979, there were 2,900 births in Huntington. Therefore, the admission rate to hospital of children less than one year of age with respiratory tract disease due to RS virus was estimated to be one child per 88 live births. This rate is similar to rates previously reported for RS virus illness in infants living in larger cities.[1]

Discussion

During one epidemic of RS virus infection in Huntington, West Virginia, a medium-sized community, infants were at high risk for severe RS virus infection during the first year of life. Since the RS virus epidemic coincided with increased admissions to hospital of infants with severe respiratory illness, and few other viral infections were identified, the majority of the virus negative illnesses may have been due to RS virus infection also. If one assumes that during this epidemic two thirds of the infants hospitalized with pneumonia, bronchiolitis or bronchitis less than

TABLE

Relationship of Age to the Number of Infants and Children Admitted to Hospital in Huntington, WV, with Pneumonia, Bronchiolitis or Bronchitis and the Proportion with RS Virus Infection.

Age in months	*Number admitted with pneumonia, bronchiolitis or bronchitis*	*Number tested for shedding of RS virus*	*Number with RS virus infection as detected by shedding of virus*	*Per cent positive for RS virus infection*	
< 2	38	37	15 (3°)	41	39
3 - 5	34	31	10	32	
6 - 8	12	11	6 (1°)	55	
9 - 11	7	7	2	29	
12 - 47	48	43	4	9	
TOTAL	139	129	37	29	

( ) Indicates the number of children requiring mechanical ventilation. The ° indicates that one child in each group died.

six months old were ill because of RS virus infection, the maximum risk may approach one in 31 infants.

These rates are comparable to rates in other studies. Annually, in Washington, D. C., approximately one in 200 infants is hospitalized with RS virus bronchiolitis, and greater than one in 100 infants are hospitalized with all types of RS virus respiratory disease.[1] In England, nearly one in 38 inner city infants, one in 60 infants from industrial towns and one in 102 infants from rural communities is hospitalized with severe RS virus illness.[2] Our data indicate that RS virus infections in towns and partly rural areas are no less important than in major urban centers.

Infants less than six months of age were most severely and more frequently affected by RS virus than older infants, a unique feature of this infection. All infants can be expected to have some maternal antibody to RS virus because all adults tested possess antibody.[5] Maternal antibody may modify the severity of illness, but clearly it does not provide sufficient protection to prevent the development of acute respiratory illness in infants, nor does it protect against the development of serious illness. Breast feeding has been shown in some studies to protect against severe RS virus infection, although these studies were not conclusive.[6,7] We attempted to question retrospectively the mothers of the 37 infants from whom we isolated RS virus. Of 24 mothers who responded to our questioning, none had breast fed her infant.

Infants Less Than 12 Months

We found that during the RS virus epidemic season, a high percentage (39 per cent) of infants less than 12 months old had RS virus infection documented by isolation of RS virus from the respiratory tract. Due to the difficulty in isolating this virus in tissue culture from a single specimen, it is likely that a majority of infants less than 12 months old with pneumonia, broncholitis and bronchitis in the winter have RS virus infection. Use of antibiotics in these infants may not be necessary. More widespread use of diagnostic virology tests will assist physicians in the decision to use antibiotics in this clinical setting.

Immunoprophylaxis of RS virus disease presents a formidable problem. To prevent the most severe infections, any RS vaccine should be given in the first few days of life. However, parenteral administration of a live RS virus vaccine would not be likely to induce an antibody response because vaccine virus would be neutralized by circulating maternal antibody which is present in nearly all infants. Inactivated RS virus vaccine failed to protect infants in several clinical trials performed in the 1960s.[8]

One practical approach to vaccine administration would be the topical administration of live attenuated RS virus to the upper respiratory tract. The generation of temperature-sensitive mutants of RS virus which replicate at the cooler temperatures of the nasopharynx, but not at the warmer temperatures of the lungs, provides a new approach to the development of RS virus vaccine. Temperature-sensitive RS virus might be expected to stimulate IgA antibody by inducing an asymptomatic infection, thus creating the potential for local protection, a mechanism similar to that induced by oral polio vaccine. An effective RS virus vaccine can be expected to have wide use and would reduce significantly morbidity from this common respiratory infection of early childhood.

Acknowledgement

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Pneumoperitoneum In The Newborn: An Open-Ended 'Ileal Atresia'

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The causes of pneumoperitoneum in the newborn are reviewed. An unusual, previously unreported case of pneumoperitoneum resulting from discontinuity of the ileum is presented.

PNEUMOPERITONEUM in the neonatal period often is the result of gastrointestinal perforation which may result from intestinal obstruction, necrosis, ulceration or instrumentation.[1,2,3] In the premature infant it can be seen as a complication of necrotizing enterocolitis. Pneumoperitoneum also can be seen in the newborn in the absence of gastrointestinal perforation when vigorous ventilatory management has to be undertaken because of severe lung disease with or without associated pneumothorax or pneumomediastinum.[4]

The patient in this report represents a previously unreported cause of pneumoperitoneum in the neonatal period.

Case Report

A 40-hour-old male infant was admitted to the West Virginia University Medical Center because of abdominal distention and pneumoperitoneum. He was a 6 lb., 12 oz. product of a 36-week uncomplicated pregnancy with a breech presentation. He had Apgar scores of seven at one minute and eight at five minutes. Transient tachypnea of the newborn lasted for approximately 45 minutes but required no oxygen or other resuscitative procedures.

Over the course of his first 36 hours the baby was afebrile with slight tachypnea but with otherwise normal vital signs. He fed poorly, and on the morning of his second day of life he had a distended abdomen. He had not vomited, his gastric aspirate had contained only one ml. of clear mucous, and he had not passed meconium. At 36 hours of age, flat and upright roentgenograms of his abdomen showed a massive amount of free air with a large air fluid level across the entire abdomen (Figure 1). There was no intaperitoneal calcification. Antibiotics and intravenous fluids were begun and he was transferred to this center for definitive therapy.

On admission the baby was active and alert with mild respiratory distress due to his massively-distended abdomen. Gastric contents were bilious. His bowel sounds were hypoactive and his rectum was empty with no blood or meconium present. At abdominal exploration his peritoneal cavity contained a large amount of air and approximately 200 ml. of bilious meconium and bile-containing sterile fluid. Lying amidst a mass of adherent bowel was an interrupted segment of otherwise normal-appearing ileum. The proximal and distal ends of this ileum looked like well-matured stomata, and the wedge-shaped mesenteric defect between them was the exact replica of the mesenteric defect that often accompanies small bowel atresias with proximal and distal blind ends. The bowel distal to this defect was small in caliber but patent throughout. No other gastrointestinal anomalies were identified, but a right pelvic kidney was noted. The ileal defect was resected with a 10-cm. margin both proximally and distally. Because of edema and inflammation both ends of the bowel were exteriorized.

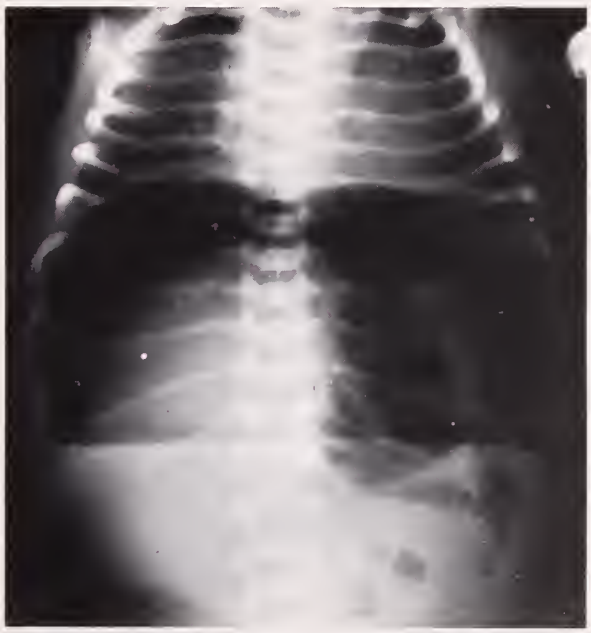

Figure 1. Upright abdominal films show a large air fluid level extending across the abdomen. No calcification is seen.

Postoperatively, the infant was maintained on peripheral hyperalimentation, and on the 17th postoperative day an enteroenterostomy was performed. The patient's subsequent course was uneventful. He had no clinical or laboratory evidence of cystic fibrosis, and he was discharged two weeks following ileal anastomosis, gaining weight and tolerating breast feedings normally. The baby has continued to thrive and develop normally.

Pathology

The resected specimen consisted of two segments of thick-walled tube resembling the small intestine attached to a roughly triangular portion of mesentery with a wedge-shaped defect beneath a one-cm. segment of the specimen where the intestine was discontinuous (Figure 2). The ends of the discontinuous gut wall were open, and the margins presented a rolled, dark red granular edge. Histologically, the rolled margins of the segment of small bowel showed abrupt termination of normal mucosa and normal wall structure into the rolled area; this was composed of partly necrotic mucosa and muscularis externa and fibrinous material heavily infiltrated by neutrophils (Figure 3). The adjacent serosa was focally ulcerated and covered partly by a fibrinopurulent exudate. The subserosal connective tissue was edematous and hyperemic. The remaining gut wall was normal aside from edema and hyperemia; the ganglion cell population was normal.

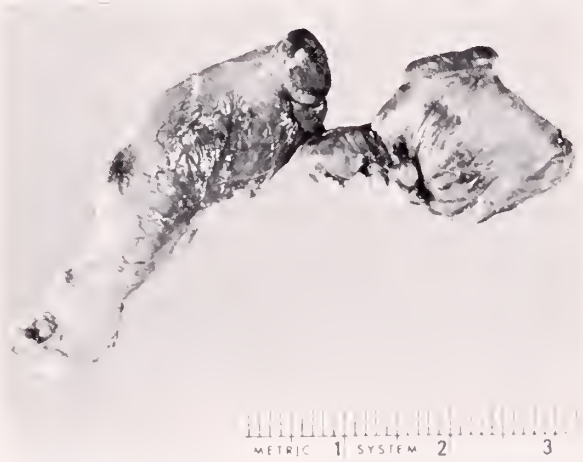

Figure 2. Resected segment of ileum demonstrates a wedge-shaped mesenteric defect and the rolled backed ends of open bowel.

Figure 3. Longitudinal section of the open bowel demonstrating mucosa along the open margin (H&E, 25X).

Discussion

Louw and Barnard[5] have demonstrated in puppies the resorption of bowel and subsequent atresia of small intestine following interruption of vascular supply. Such vascular accidents *in utero* ordinarily result in bowel atresias with postnatal signs and symptoms of intestinal obstruction. Pneumoperitoneum occurs only in the late stages of such an intestinal obstruction following perforation from necrosis. Wolfson and Williams[6] report three cases of atresias in which the distal bowel was patent, resulting in extravasation of barium into the peritoneal cavity; however, pneumoperitoneum was not present in these cases prior to the diagnostic barium enema.

Our case of pneumoperitoneum was not preceded in the postnatal period by instrumentation, resuscitative procedures or intestinal obstruction with necrosis and perforation. This case apparently represents the same mechanism usually associated with distal bowel atresias. The failure of closure of the proximal and distal ends of bowel cannot be explained, but may represent an arrest of the usual resorption process due to the superimposed birth of the baby and introduction of feedings.

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Non-Specific Granulomatous Prostatitis

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Between 1968 and 1978, four patients with non-specific granulomatous prostatitis were seen at West Virginia University Hospital. Three patients presented with irritative and obstructive symptoms and the other patient with a prostatic nodule. All patients were diagnosed by transrectal needle biopsy of the prostate. Three patients had associated benign prostatic hyperplasia and underwent transurethral resection of the prostate. The patient with the prostatic nodule had associated prostatic carcinoma and underwent interstitial implantation of Iodine^{125} into the prostate gland.

In 1943, Tanner and McDonald first described the existence of an inflammatory granulomatous prostatitis of unknown etiology in which the specific granulomatous infections, tuberculosis, syphilis, and the mycosis could be excluded.[1] In 1950, Symmers further clarified this entity by differentiating it from known specific varieties of granulomatous prostatitis and classified it non-specific granulomatous prostatitis.[2]

The actual incidence of non-specific granulomatous prostatitis is difficult to determine in that tissue diagnoses in patients presenting with prostatitis are not consistently established. Keuhnelian and associates reported an incidence of 4.0 per cent (39 of 975 cases) of all types of prostatitis seen in surgical specimens but only 0.73 per cent of all prostates submitted during a period of 11 years.[3]

This condition has its clinical significance because of its frequent confusion with carcinoma of the prostate. Our interest in this subject was prompted by the clinical rarity of this inflammatory disease and the association of prostatic carcinoma in one case.

Case Reports

Case 1. M.C., WVUH #14-35-77, a 62-year-old, white male with epilepsy, was admitted October 5, 1968, to the Medical Service at West Virginia University Hospital with a one-week history of burning, hesitancy, frequency, and pyuria. These symptoms had progressed until the patient had a dribbling stream with fever and chills.

Pertinent physical findings on admission included a temperature of 102 degrees F., suprapubic tenderness, and an enlarged, firm, nodular right lobe of the prostate. Urinalysis revealed 50 white blood cells per high-power field. Urine culture grew more than 100,000 colonies of *E. coli* per milliliter. The CBC, BUN and serum creatinine were all normal. The acid phosphatase was 0.5 K.A. Units with a prostatic fraction of 0.0 Intravenous pyelogram revealed malrotation of the left kidney with an irregular small bladder with a thickened wall and significant residual urine.

After several days on oral ampicillin and catheter drainage, the patient became afebrile. A transrectal needle biopsy was performed since there was a suspicion of prostatic carcinoma. The pathological diagnosis was "granulomatous prostatitis." A transurethral resection of the prostate was performed, and the patient did well postoperatively. The prostate gland was biopsied three months later because of persistent hardness of the gland. Again, granulomatous prostatitis was diagnosed. By nine months postoperatively the prostate palpated normally. The patient was last seen in 1975 and was doing well.

Case 2. C.B., WVUH #21-99-81-8, a 73-year-old, white male diabetic was seen initially in February, 1970, in consultation for complaints of nocturia times two and occasional trouble starting his urinary stream.

Physical examination revealed a slightly enlarged prostate gland. The CBC, BUN and urinalysis were normal. Prostatic acid phosphatase was 0.4 K.A. Units. The intravenous pyelogram revealed a duplicated left collecting system, and cystoscopy revealed Grade 2 bladder trabeculation with minimal obstruction of the prostatic urethra.

The patient was followed until August, 1975, when he complained of increasing voiding difficulty. Rectal examination revealed a 20-gram prostate with nodularity. Urinalysis revealed 5 to 10 white blood cells per high-power field, and urine culture grew more than 100,000 colonies of Enterobacter aerogenes per milliliter. A repeat CBC, BUN, serum creatinine and prostatic acid phosphatase were normal. The intravenous pyelogram was unchanged. Cystoscopy revealed trilobar obstructing prostatic tissue. A transrectal needle biopsy revealed "granulomatous

inflammation." A transurethral resection of the prostate was performed, and the patient had a normal postoperative course.

Case 3. P.G., WVUH #37-39-86-9, a 61-year-old, white male was seen in the Family Practice Department in August, 1978, and found to have a prostatic nodule; otherwise, he was urologically asymptomatic. Examination revealed a two-cm., hard nodule on the left lobe of the prostate. A transrectal needle biopsy showed well-differentiated adenocarcinoma of the prostate.

All laboratory studies were normal, including the serum acid phosphatase with the prostatic fraction. The intravenous pyelogram revealed a questionable left mid-calyceal mass which was determined to be a normal variation after ultrasound and renal scan. A metastatic workup consisting of bone scan and computerized axial tomography of the prostate was negative.

A channel transurethral resection of the prostate was performed. The pathology report was "granulomatous prostatitis." The patient did well following the transurethral resection of the prostate. He later underwent interstitial implantation of Iodine^{125} into the prostate gland combined with bilateral pelvic lymphadenectomy. His lymphatic tissue was negative for metastatic disease, and he has done well since surgery.

Case 4. T.J., WVUH #25-86-19-6, a 77-year-old, white male presented to the Emergency Room on November 28, 1978, in urinary retention.

Significant findings on physical examination included a bladder palpable to the umbilicus and a prostate gland estimated at 30 grams, which was firm in consistency. Urinalysis was unremarkable. Urine culture revealed 15,000 colonies of Enterobacter aerogenes per milliliter. The BUN and serum creatinine were normal. The acid phosphatase was 3.0 K.A. Units with a prostatic fraction of 1.0 K.A. Units. The intravenous pyelogram was normal. Cystoscopy revealed 20 grams of lateral lobe obstructive prostatic tissue.

Since there was a suspicion of prostatic carcinoma, a transrectal needle biopsy was done. The pathological diagnosis was "benign glandular hyperplasia with foreign body granuloma." A transurethral resection of the prostate was performed. The patient had a normal postoperative course and has continued to be asymptomatic.

Discussion

Non-specific granulomatous prostatitis is a rare entity which has been diagnosed from pathology specimens four times in the past 10 years at West Virginia University Hospital. The significance of the disease is realized as it is often confused with prostatic carcinoma. The asymmetrical, nodular, hard gland often considered pathognomonic of carcinoma can be duplicated by this entity. Kelalis *et al.*, in their study of 70 cases with granulomatous prostatitis, suspected carcinoma in 77 per cent by rectal examination.[4] O'dea *et al.* reported four of 86 patients with granulomatous prostatitis as having associated adenocarcinoma.[5] Carcinoma was suspected clinically in all our four patients but was confirmed in only one.

Figure 1. Arrows denote granuloma.

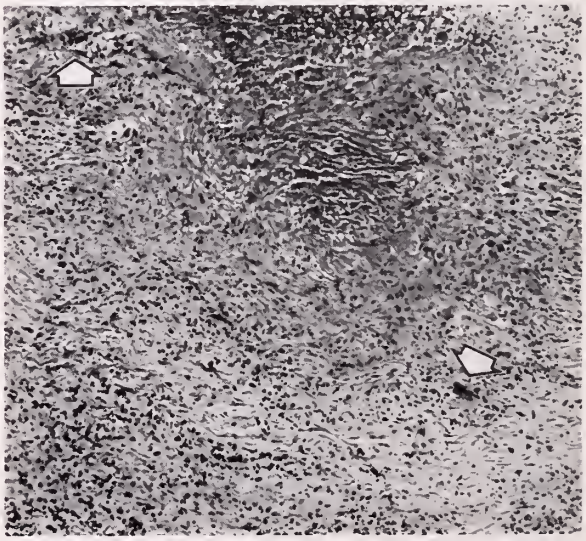

Figure 2. Arrows denote giant cell formation in granuloma.

The pathogenesis of non-specific granulomatous prostatitis is thought to result from partial obstruction of prostatic ducts secondary to inflammation or from the mechanical pressure of benign nodular hypertrophy. This, in turn, results in stasis in the smaller ducts and acini. With chronic inflammation the epithelium and acini are destroyed with the contents escaping into the surrounding stroma. A diffuse or local chronic inflammatory reaction with a foreign body type response results in the formation of a granulomatous type picture[1] (Figures 1, 2). This process may produce a prostate which palpates identically to adenocarcinoma.

Non-specific granulomatous prostatitis presents with fever and increasing symptoms of lower urinary tract infection in 83 per cent of the 70 cases reported by Kelalis *et al.*[4] This was the presentation in one of our four patients. The history of a febrile episode immediately preceding the onset of urinary symptoms also can occur with benign prostatic hypertrophy or carcinoma associated with acute infectious prostatitis. Laboratory studies are usually non-specific. Kelalis *et al.* reported that 65 per cent of their 70 patients showed evidence of urinary tract infection.

The treatment of non-specific granulomatous prostatitis usually is enucleation or transurethral resection of the gland to relieve the bladder neck obstruction. In the absence of obstruction, no treatment is required. Bush *et al.* reported one case which responded dramatically to steroid therapy.[6] Prednisolone therapy was instituted and continued for three weeks at which time the prostate had returned to normal size and consistency. Marshall states that the condition will resolve spontaneously within a six-month period.[3]

In summary, four cases of non-specific granulomatous prostatitis have been reported. The pathogenesis and clinical features were discussed briefly. This condition has clinical significance because it is frequently confused with carcinoma of the prostate.

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Medical Grand Rounds

From the West Virginia University Medical Center

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Aggressive Treatment Of Acute Poisoning

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The majority of poisoned patients can be treated successfully by intensive supportive care. With such treatment, the overall mortality has been decreased to approximately one per cent. In severely-poisoned patients, mortality still remains relatively high despite excellent supportive care. More aggressive treatment including dialysis and hemoperfusion has been advocated in these patients. The use of these therapeutic methods has been reported to have a beneficial effect, decreasing severity of complications and mortality. Because of cost and potential complications, however, dialysis and hemoperfusion are indicated only in a selective group of severely-intoxicated patients.

ACUTE intoxication, particularly with sedative and hypnotic medications, is a growing health problem in this country. Supportive management remains the mainstay of therapy in intoxicated patients. However, dialysis and hemoperfusion, although still not universally accepted,[1] have been used with increased frequency in the treatment of many intoxications. Reports of efficient poison extraction with consequent rapid improvement of clinical status have supported the usefulness of these techniques, which may be indicated particularly in a selected group of patients who are severely intoxicated.[2-13] The use of these efficient methods may enhance significantly the excretion of, for example, central nerous depressant drugs, and thus not only reduce the length of coma but also the severity of the complications.

The early 10- to 40-per cent mortality of patients with severe overdose of drugs with sedative properties, treated previously with "stimulation therapy" (picrotoxin, amphetamine, bemegride), was decreased to one to two per cent with a "Scandinavian method" using support of the patient's vital functions while the intoxicant was metabolized or excreted. Additional reduction in mortality seemed to be achieved with the application of peritoneal and hemodialysis in conjunction with supportive care.

More recently, hemoperfusion has been used. This becomes very attractive in view of the high clearances of many ingested toxins. However, the standard techniques in use for removal of poisons from the body such as gastric lavage, oral administration of solvent and forced diuresis still retain a prominent role, particularly in less severe intoxications.

Because of rapid absorption of many poisons from the gastrointestinal tract, speed in the removal of the poison either by induced emesis (ipecac or apomorphine) or by gastric lavage is essential. Gastric lavage, when performed with a large lumen nasogastric tube, can be a very effective means of removing unabsorbed drugs from the stomach. In the comatose patient, this procedure is much safer when a cuffed endotrachial tube is in place. Gastric lavage may be employed even four to eight hours after ingestion of barbiturates because of delayed gastric emptying.

Activated charcoal has been used as an orally-administered solvent in the gastrointestinal tract for various toxic substances, either to prevent or retard their absorption. It is easily administered and accepted by children, serving as an alternative to apomorphine- or ipecac-induced emesis, and avoids the potential hazards observed when strong salt solution is used for induction of emesis. Some studies demonstrated that activated charcoal may prevent absorption of drugs, not only in the stomach but also in the small intestine.

Forced alkaline diuresis is indicated for phenobarbital, barbital and salicylate poisoning. Forced acid diuresis is indicated in severe amphetamine and quinine poisoning.[5]

Indications for Dialysis

In judging the applicability of dialysis or hemoperfusion in the removal of poisons, several criteria need to be considered because of potential complications and expenses related to these procedures.[2] Dialysis or hemoperfusion should be applied only if it constitutes a significant addition to the normal body mechanism in the removal of the given poison. The dialyzing membranes (such as cellophane or peritoneum) should be sufficiently permeable to the toxins in question or the extraction rates of hemoperfusion devices efficient. The poison also should be distributed in plasma water or other accessible body fluid compartments which can equilibrate readily with the circulating plasma volume. High protein or tissue binding of the poison may limit the efficiency of removal of the poison by dialysis, but not by hemoperfusion. There also should be a relationship between the blood concentration, the duration of body exposure to the poison, and clinical status of the intoxicated patient. This relationship is termed the "time-dose-cytotoxic relationship." In addition to the above criteria related to applicability of dialysis and/or hemoperfusion in the treatment of poisoned patients, the following clinical criteria may indicate the need for hemodialysis or hemoperfusion:

1. Severe clinical intoxication which includes Stage IV coma (absent reflexes with respiratory depression, cyanosis, circulatory failure and shock) or Stage III coma, if prolonged (reflexes virtually absent, but respiration and circulation not depressed).

2. Blood levels that are in potentially fatal range (80 to 100 μg/ml or greater in a long-acting barbiturate, 30 μg/ml or greater in short-acting barbiturate, above 50 mg/dl for methanol etc.).[2,3,10,12]

3. Poison-induced functional impairment of the organs which constitute the normal route of excretion of the poison (or its major metabolites) or an underlying disease of these organs.

4. High plasma concentration of a poison which is metabolized to a more toxic substance such as methanol (metabolized to formic acid and formaldehype) and ethylene glycol (metabolized to oxalic acid).

5. Clinical deterioration despite optimal supportive care.

6. Prolonged coma, because of increased incidence of complications such as aspiration pneumonia and septicemia or the presence of these complications.

7. Intoxications by agents producing delayed toxicity (acetominophen paraquet etc.).

A decision about when to use dialysis or hemoperfusion (in addition to supportive treatment) in poisoned patients can be made only after careful assessment of the patient's clinical status, and knowledge of the dialysis and hemoperfusion kinetics of the poison in question.

Peritoneal Dialysis:

Because of low peritoneal membrane clearances, the amount of the majority of poisons removed by peritoneal dialysis does not constitute a significant addition to the normal body mechanism. Thus, peritoneal dialysis has an established place only in the management of lithium overdose because of high intracellular lithium concentration and relatively slow equilibrium with the extracellular fluids.[5,8]

Hemodialysis:

Hemodialysis, similar to peritioneal dialysis, has not proved convincing in the care of patients with overdose of the short- or long-acting barbiturates and the non-barbiturate hypnotics which are responsible for many serious and fatal poisonings. However, in the treatment of severe salicylate,[9] methanol[10,11] and ethylene glycol[12,13] poisoning, regardless of associated acute renal failure, hemodialysis continues to play a role.

Salicylates, which usually are administered as sodium salicylate or acetylsalicylic acid (aspirin) are rapidly hydrolyzed to salicylic acid in blood, which distributes rapidly throughout all the tissues.[9] Because the drugs penetrate biologic membranes, primarily in the non-ionized form, salicylic acid, which has a pH of 3, is highly

ionized at the normal pH of the blood. The decrease in blood pH increases the non-ionized, penetrating form to such level that a fall in blood pH from 7.4 to 7.2 doubles the amount of non-ionized salicylic acid. The resulting effect on the distribution, pharmacologic action and excretion is similar to that demonstrated for phenobarbital. Thus, systemic acidosis by increasing the concentration of non-ionized salicylate which penetrates into the brain cells is shown to be associated with impaired consciousness and to carry a grave prognosis. Systemic alkalosis is, in the condition of salicylate intoxication, a desirable state not only because it decreases the penetration of salicylates into the brain cells, but also because it produces alkaline diuresis and consequently higher excretion of the drug. If alkalinization of the urine by carbonic anhydrase inhibitors is considered necessary, acidemia must be prevented by aggressive intravenous administration of bicarbonates. If blood salicylate levels exceed 50 mg/dl (or serious systemic acidosis develops) extracorporal removal has to be considered. Both hemodialysis and hemoperfusion were reported to be equally effective, but hemodialysis, because of lower cost, has the advantage in a hospital with a hemodialysis unit available.

Methanol, Ethylene Glycol

Methanol and ethylene glycol[10-13] have a special place among the dialyzable poisons. The clinical manifestations of methanol poisoning may be delayed for 12 to 18 hours and characterized by a moderate degree of CNS depression, similar to ethyl alcohol ingestion. However, due to methanol metabolism to more toxic formaldehyde and formic acid, a severe metabolic acidosis develops with visual impairment and blindness caused by specific toxicity for the retinal cells by formaldehyde. Control of acidosis with bicarbonate administration and delay of methanol metabolism by the administration of ethanol may prevent ocular damage and decrease mortality.[10,11] Hemodialysis is recommended if the blood methanol is above 50 mg/dl.[10,11]

Ethylene glycol was reported to be potentially lethal in adults when ingested in amounts greater than 100 ml.[12,13] However, a smaller dose can still produce cardiopulmonary and CNS toxicity with severe metabolic acidosis. In addition, ethylene glycol metabolites have significant nephrotoxic effects, and thus the patient may require dialysis for treatment of acute renal failure. The first sign of illness following ethylene glycol ingestion appears after four to eight hours, at which time metabolic acidosis and calcium oxalate crystals in the urine usually are present. These findings are manifestations of the toxic metabolites of ethylene glycol. The treatment objectives of methanol and ethylene glycol poisoning include:

1. Gastric aspiration and early hemodialysis to reduce the load of methanol and ethylene glycol substrates (if high doses were ingested or if there are high blood levels).

2. Ethanol infusion, to block the metabolism of these poisons (by blocking alcohol dehydrogenase). Maintenance of blood ethanol levels of over 100 mg/dl for at least 24 hours is essential. Ethanol should be administered in such dosage to reach a blood concentration of 100 mg/dl. This may be achieved by an ethanol loading dose of 0.6 gm/kg body weight and maintained by the ethanol infusion of 60 mg/kg/hr in patients not on dialysis.

3. Treatment of severe methabolic acidosis with bicarbonate.

4. Forced diuresis (with IV fluids, Lasix and Mannitol if necessary) in ethylene glycol poisoning to prevent calcium oxalate deposition in the kidneys.

With such treatment (including early hemodialysis) recovery without any sequelae classically ascribed to methanol and ethylene glycol poisoning was reported. A patient ingesting two liters of ethylene glycol[13] recovered completely.

Sorbent Hemoperfusion:

In hemoperfusion, the blood passes directly over an absorbing surface which efficiently removes poorly dialyzable or lipid soluble substances. Absorbing surfaces usually employ activated charcoal or different resins. Hemoperfusion has been used increasingly for the treatment of a large variety of exogenous intoxications[2-7] including digitalis.[14-15] It also was suggested for the treatment of fulminant hepatic failure due to hepatitis or different poisons.[16,17] This procedure was used particularly in the treatment of overdose with one or more drugs, such as barbiturates, non-babiturate hypnotics, sedatives and tranquilizers, but was reported to be the most effective in patients with phenobarbital intoxication.

Hemoperfusion has been shown to achieve high clearance rates in these poisonings and, in some case reports, was claimed to be life saving. However, because of costs and potential complications, the use of hemoperfusion is limited to the severely-intoxicated patients who present in Stage IV coma or in Stage III coma associated

with other complications such as aspiration pneumonia, liver and kidney disease, etc. The major previous problems related to hemoperfusion such as fragmentation of the carbon granules or resins and damage to the blood protein and cells (particularly platelets) by noncompatible surfaces were partially resolved by coating the carbon granules or resins.

Other Adverse Reactions

Other adverse reactions related to hemoperfusion, however, are still present. A decrease in the platelet count occurs after almost every hemoperfusion. The decline averages 32 per cent and ranges from 0 to 69 per cent. The thrombocytopenia gradually resolves over a period of several days after hemoperfusion, rarely produces any evidence of major bleeding, and is seldom so severe that platelet transfusions are required. Mild hypocalcemia which is usually asymptomatic was seen in many cases after hemoperfusion. In the rare cases of hypocalcemia associated with symptoms of tetany, intravenous calcium relieved the symptoms rapidly. Occasionally-observed transient hypotension was considered to be due to "volume" effect secondary to diminished effective intravascular volume caused by the extracorporeal circuit; the hypotension is easily treated with saline or plasma expanders. Occasional decrease in plasma glucose, cholesterol, uric acid and total protein were noted after hemoperfusion. No clinical symptoms observed were related to these changes.

Therefore, although the reported data demonstrate the efficacy and usefulness of hemoperfusion for the management of several drug overdoses, only certain patients with severe drug intoxication and those having underlying diseases in whom the complications of drug overdose are more hazardous may require this therapeutic modality to enhance removal of the drug from the body.

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A message from . . .

The President

HEADQUARTERS

The Need: Although the headquarters of the West Virginia State Medical Association has had its office in the bank building for many years at a reasonable rate, things are changing and our costs are escalating. The long-term, low-cost rate is gone. We are now confronted with rising costs per year per foot of rental space.

In addition, parking costs, meeting room expenses for large committees, Council, etc., have truly increased.

The present opportunity for expansion for any future needs is limited.

The Project: To build a structure not only capable of supplying the requirements of the Association staff but also meeting rooms, library facilities, and rental space sufficient to defray the cost of the structure and its maintenance.

The Site: Selected by a committee composed of leaders in the Charleston area in medicine and real estate, the MacCorkle Avenue site was purchased. Those who say "Why Charleston?" must recognize realistically that situated there are the hub of the Association business, large membership numbers, and a central location relative to the medical schools and their activities.

The Goal: Occupancy in 1982.

The Challenge: Finance the structure at as low a cost and interest as possible. Those who have not paid their assessment could help by paying up.

The Opportunity: In the construction there can be developed an opportunity for participation by the membership and our friends. Any member, friend, drug house, society, insurance agent, etc., that desires to participate may donate a sum from $10 to no more than $20,000. These donations may honor the memory or the contribution of any present or past Association member.

Appropriate plaques will be designed to recognize those who contribute funds for such items as library shelves, room furnishings, etc.

Give some thought to the recognition of past local society and State Association leaders by making a contribution to the building in their name. It would be tax deductible. Contributions may be sent to the West Virginia State Medical Association Office in the name of the West Virginia State Medical Association Properties, Inc.

L. Walter Fix M.D.

L. Walter Fix, M. D., *President*

The West Virginia Medical Journal

Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

MEDICAID FAILURE

In March, 1980, we said on these pages, "The West Virginia Medicaid Program is sick! It is time to call family members to the bedside." The patient, pale and cachetic, now lies moribund with fevered brow and labored breathing — an argument for euthanasia.

In June and July, 1979, *The Journal* identified the basic pathology. The program was horribly underfunded. The fiscal anemia thus produced has continued to sap what little strength remained.

Hopefully, there's now a chance for at least a start toward revitalization. The Rockefeller Administration budget bill handed the 1981 Legislature included funds for some reimbursement relief for providers.

Over the past year, we have had a number of things to say about Medicaid. These comments have not gone unnoticed. Welfare Commissioner Leon Ginsberg has taken favorable note of these and has reported awareness of them by the Governor's Office.

The Legislature has been kept informed of the worsening Medicaid situation through our efforts and through information generated last summer by the Interim Committee.

But where are we today? Like the song says — just a little bit older and deeper in debt. Fewer doctors are seeing Welfare patients. More Welfare patients are getting all their care from the most expensive source in town — the hospital emergency room. The computerized system for speeding Medicaid claims still has shortcomings. Code books promised physicians to help them fill out new forms still haven't reached many offices. And in too many instances, the heralded, and costly, new system still isn't getting invoices paid in timely fashion. One large group of physicians reports that it has — for inpatient and outpatient services — more than $180,000 outstanding in book-charge Medicaid invoices. With 56.7 per cent of those dollars in billings 120 days old or older, there is still trouble.

We have addressed, with deep concern, the problem of fewer physician participants in the Medicaid program's provider ranks. Last June, we said editorially: "The economic foolishness of continuing to see Welfare patients had been occurring with increasing frequency to increasing numbers of West Virginia physicians long before MMIS tipped the scales for a flood of now-angry physicians."

We made certain recommendations: co-payments for Medicaid services; family contributions toward the cost of nursing home care; a halt in eligibility for program abuse; prosecution of any provider for fraud; a system of priorities among all the categories of care; and assurance that professional services are provided in the most economical setting. To accomplish the last point, we suggested that as a matter of basic policy, the cost disparity between care provided in a physician's office and that same care in a hospital setting must be bridged.

In a letter to *The Journal,* Commissioner Ginsberg said that his office was working on "your last two suggestions" — those dealing with priorities among all categories of care and provision of service in the most economical setting — "with the Legislature and with the Executive branch." The Commissioner added that "I have given your editorials wide circulation in the past, and I will do so with these messages as well. . . ."

We had feared the wide circulation had been confined to the Capitol bathrooms. We couldn't see any results for the good of the state.

Commissioner Ginsberg and the Legislature have played a neat game of pingpong with the Medicaid problem. He has said, "Oh my, my hands are tied by the appropriations the legislators allow me. Talk them into giving me more money and I will certainly take care of the problems." The legislators have said, "We appropriate more than enough money. We can't be bothered with the administrative details of the program. See Mr. Ginsberg if there are problems." Back and forth.

Final legislative action on the 1981-82 budget still lies ahead. But there now appears reason to feel there's finally some coordinated approach to combine funding with administrative changes and thus help a deteriorating program.

A LOVE TRIANGLE

Humanity, that old love, pines and suffers the anguish of neglect while Medicine carries on its torrid new affair with shameless Science, that kept seductress lolling about in her sterile, climate-controlled palace of Technology, bedecked and monitored with computer-controlled jewels and other flashing baubles. Bored with her new electronic toys, she idly contemplates new temptations for her beguiled lover.

How can one tell the exact moment an old love dies? Perhaps it never does. There's no hate — just some steady drifting apart. Was it Insulin that caught Medicine's eye? Or Penicillin? Maybe Polio Vaccine. There was that fascination with the Laboratory and its profusion of tests that still so titilates the mind. Anesthesia with its wondrous tricks added glamour. And then, speaking of glamour, there was Surgery revascularizing hearts and installing new joints all over the anatomy. Finally there came Monitors and Computers, little flashing lights and screens of serpentine lines moving to the tune of bleeps and tiny squeaks. Resistance was impossible. Humanity sat at home by her telephone and the scandalous affair was on.

Humanity has been a love. And caring in humanitarian ways for people has been Medicine's strongest tradition dating back beyond Aesculapius probably to the Stone Age. Prime value has always been placed on alleviation of suffering. And almost equal value has been placed on comfort for the sick.

These values no longer hold. Function now predominates in the value system. Pain and suffering, or, ease and comfort have not only taken a back seat, but life itself has diminished in value. Although no firm figure has been set, a tacit acknowledgement has arisen that life is no longer priceless.

Quality assurance for Government and the insurance industry is a code name for cost cutting and, for many hospitals, quality assurance deliberations camouflage their anxiety-directed activities at avoiding negligence suits. Genuine concern for patients, their ease or their comfort, is hardly a consideration. Saving money and avoiding culpability are the concerns.

It is understandable that someone should have concerns. It is even commendable that Government occasionally think about saving money, and it is certainly laudable that insurance company executives think of holding down costs rather than simply raising rates. But the trouble is that they even have doctors worrying about these concerns of theirs and, in the process, Medicine is losing its reputation as a *caring* profession.

We will lose that reputation entirely if we listen with both ears to the clacking of computers and the inane clucking of health planners concerned with numbers rather than feelings, dollars rather than pain, and lengths-of-stay rather than comfort.

The caring part of Medicine is being given away to unwashed practitioners or other opportunists lacking tests, gadgets and devices or even the faint image of a scientific basis on which to rest their efforts.

Medicine is becoming a pure technology which views the human body as a fascinating ambulatory chemical factory. Humanity is being phased out.

Third parties do not really care. Oh, they have a cosmetic care to the extent that their benefit package should look good. PSROs have shown no ability to put a humanitarian code into their computers. HMOs and their physicians are too preoccupied with the integrity of their fiscal affairs to have any awareness of humanitarian cares.

A medically sound and humanitarian care is one which has a concern for the person rather than that person's mechanics or chemistry. The incidence of malpractice litigation graphs the insincerity discerned by the public in the concerns about caring we manage to project.

In our dealings with third parties, someone must ask: who says that real care is not included in the benefit package? Where does it say that comfort is not to be a consideration in the service to be provided? What part of the contract excludes dignity as a required accompaniment of service?

Will Medicine repent, break with Science, and return Humanity to her rightful place at his side? It seems unlikely. Those kaleidoscopic charms of Science are hypnotizing in their constantly changing form. Can old and new loves live together in peace and harmony under Medicine's roof? In romance a tragic fate awaits the foolish lover attempting such a hopeless compromise.

In this allegory a tragic fate awaits Medicine if it fails to find some way to enjoy such a bigamous bliss.

GENERAL NEWS

AMA President To Speak At Annual Meeting

Daniel T. Cloud, M. D., who will be installed as President of the American Medical Association in Chicago in June, will speak during the 114th Annual Meeting of the State Medical Association August 20-22 at the Greenbrier in White Sulphur Springs.

Doctor Cloud, a pediatric surgeon from Phoenix, Arizona, will address the first session of the House of Delegates on Thursday afternoon, August 20, it was announced by the Program Committee.

Doctor Cloud is certified by the American Board of Surgery with a Certificate of Special Competence in Pediatric Surgery.

He is Chairman and founder of the Division of Pediatric Surgery at Arizona State Crippled Children's Hospital.

Doctor Cloud has been a member of the AMA Board of Trustees since 1974, and was Secretary of the Board and AMA Secretary-Treasurer from 1977 to 1979. He was an Alternate Delegate and Delegate to the AMA House of Delegates from 1964 to 1974, and is a former member of the AMA's Council on Constitution and Bylaws.

First Pediatric Surgeon

The AMA President Elect, who opened his practice in 1955, was the first pediatric surgeon to enter practice in Arizona. He has developed integrated surgical programs for underprivileged crippled children, and has established cardiac case-finding clinics on Indian reservations in northern Arizona.

Doctor Cloud also developed a highly successful financial aid program for Arizona physicians and medical students that later was integrated into the AMA Education and Research Foundation which guarantees loans for medical students, interns and residents.

He received his M. D. degree in 1948 from the University of Illinois, and interned at the University's Research and Education Hospital. He completed a residency in pediatric surgery at Children's Memorial Hospital in Chicago.

Doctor Cloud has received three awards for distinguished service from the Maricopa County Medical Society in Phoenix.

The pre-convention meeting of the State Medical Association's Council and the first House session, as announced previously, will be held on Thursday instead of on Wednesday as has been the case in recent years. This schedule change is the result of action by the House last August to shorten the 1981 Annual Meeting by one day.

Scientific Sessions

The number of general scientific sessions has been reduced from three to two, and will be held on Friday and Saturday mornings with elimination of the previous Thursday morning scientific session.

Opening convention exercises will precede the Friday morning scientific program.

Dr. William L. Furlow, as announced previously, will speak during the first general scientific

Daniel T. Cloud, M. D.

session Friday morning. A Mayo Clinic urologist, his topic will be "Impotence with Regards to the Etiology, Diagnosis and Treatment." He also will speak on "Urinary Incontinence with Regards to the Artificial Sphincter" at a meeting of the Association's Section on Urology at 2 P. M. on Friday.

The Friday and Saturday morning scientific sessions also will include papers on the subjects of the handicapped, rehabilitation, bone tumors, malpractice and person-to-person communications.

Various other scientific sections and societies again will hold breakfast and other scientific meetings on Friday and Saturday, and the House will meet for the second and final time on Saturday afternoon.

Inauguration of Doctor Markey

The Saturday evening reception for new officers will be held as usual following the second House session. At that session, Doctor John B. Markey of Charleston will be inaugurated as President to succeed Dr. L. Walter Fix of Martinsburg.

Members of the 1981 Program Committee are Dr. T. Keith Edwards of Bluefield, Chairman; Doctor Markey; and Drs. Stanley J. Kandzari of Morgantown, Ruth C. Harris of Huntington, Jerome C. Arnette, Jr., of Elkins and Harvey D. Reisenweber of Martinsburg.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. Gary G. (Ruth) Gilbert of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's convention.

More specific information relative to other general session topics and speakers will be provided in upcoming issues of *The Journal.*

Reservation forms normally provided by the Greenbrier at the beginning of the year have been delayed, but will be mailed to all Association members as soon as available. Those planning to attend the Annual Meeting are encouraged to give them their earliest possible attention.

Patient Education Workshops Planned In April, May

The Center for Extension and Continuing Education, West Virginia University, through a grant from the Area Health Education Center (AHEC), will offer 12 one-day workshops in April and May for health professionals interested or involved in patient health education.

Two six-hour workshops are scheduled for each of the following locations: Canaan Valley, Buckhannon, Charleston, Logan, Welch and Princeton. Two of these subjects will be presented at

Shown in the left photo are physicians checking the program for a session of the 14th Mid-Winter Clinical Conference attended by 236 physicians, residents, nurses and medical students in Charleston January 23-25 at the Holiday Inn Charleston House. From left, are Drs. Lewis H. McConnell and Chandra M. Kumar, both of Charleston, and L. Blair Thrush, Morgantown, who spoke on allergies during the public session of the conference Friday evening, January 23. Doctor Thrush, who also spoke during the Saturday morning physicians' session, and the other two doctors also appeared at a news conference Friday afternoon. On the right is one of the speakers for the Friday afternoon session, Dr. James W. Manier (left), Morgantown. With him is Dr. William O. McMillan, Jr., of Charleston, a member of the Conference Program Committee.

each site: Diabetes-Educating Patients for Self Care; Hypertension Self Care; and Stress Reduction.

Continuing Education Units (CEUs) will be available to participants. Registration materials for these workshops are available.

For more information on sites, exact dates and subjects contact Natalie Ames, WVU Conference Office, West Virginia University, Morgantown 26506; telephone (304) 293-4892.

AMA, Others Found Innocent Of Antitrust Charges

The American Medical Association and 12 other defendants recently were found innocent of all antitrust charges brought against them by five chiropractors in U.S. District Court in Chicago. The lawsuit — known as Wilk, *et al.* v. AMA, *et al.* — was filed in October, 1976, the first of several filed against the AMA and other organizations and individuals by chiropractors and chiropractic societies. The case went to trial December 8, 1980, and the jury voted unanimously for acquittal on January 30.

"The AMA believes that this verdict will have a significant impact on other cases challenging the medical profession's right to speak out on public health issues," said AMA Executive Vice President James H. Sammons, M. D.

The five chiropactors in the Chicago suit charged the AMA and other defendants with conspiring to monopolize health care services and to restrain unreasonably duly licensed chiropractors from competing in the delivery of health care services. They also charged the defendants with conspiring to isolate and eliminate chiropractic as an unscientific cult and the practice of chiropractic as a hazard to the health of the public.

The AMA maintained that it had not restrained the practice of chiropractic and that it was exercising its First Amendment rights to speak as a scientific organization in the public interest on health matters.

Max Wildman, the AMA's attorney, said "The AMA's goals and objectives of upgrading patient care have been approved by jurors that want the best. They appreciated the efforts doctors are making."

The attorney for the chiropractors, George McAndrews, said he would appeal the verdict. McAndrews is the brother of Jerome F. McAndrews, Dean of the Palmer College of Chiropractic in Des Moines, Iowa.

In addition to the AMA, other defendants in the case were American Academy of Orthopaedic Surgeons, American College of Physicians, American College of Radiology, American College of Surgeons, American Hospital Association, Chicago Medical Society, Illinois State Medical Society, Joint Commission on Accreditation of Hospitals, former Chairmen of the defunct AMA Committee on Quackery H. Thomas Ballantine, M. D., and Joseph A. Sabatier, M.D.; former Secretary of the Committee H. Doyl Taylor, and Doctor Sammons.

Sponsored by the State Medical Association and the West Virginia University and Marshall University Schools of Medicine, the 14th Mid-Winter Clinical Conference held in Charleston January 23-25 was attended by Drs. L. Walter Fix of Martinsburg, left, and Jimmy L. Mangus, Charleston (left photo). Doctor Fix is President of the State Medical Association. Doctor Mangus was a speaker for the physicians' session conducted by the West Virginia Medical Institute, Inc., Friday evening, January 23. In the right photo are, from left, Drs. Mabel M. Stevenson, Huntington, another speaker for the Friday evening physicians' session; Jack Leckie, Huntington, and Harry S. Weeks, Jr., Wheeling, Medical Director of the Institute, who presided and also participated in the session.

VA Physician Also Fills MU Associate Dean Post

Dr. Raymond R. Watson, Chief of Staff at the Veterans Administration Medical Center in Huntington, also will serve as Associate Dean of the Marshall University School of Medicine, Dr. Robert W. Coon, Dean of the School, announced.

"Doctor Watson will serve as a liaison between the medical center and the school and will assist in coordinating our clinical education programs at the center," Doctor Coon said.

"We are pleased to have the services of this very capable physician/administrator, who has an exceptional background in clinical teaching. This is one of the many benefits of our close partnership with the VA," the Dean noted.

A native of Michigan, Doctor Watson joined the Huntington VA Medical Center last October, coming from Wisconsin where he had been consultant in thoracic surgery at the Wood VA Medical Center since 1965.

He held a variety of clinical faculty appointments with the Medical College of Wisconsin in Milwaukee and had served as Clinical Associate Professor of Surgery in the Thoracic Cardiovascular Department since 1971.

Earning his M. D. degree from the University of Wisconsin in 1948, he completed his internship at Highland Park General Hospital in Detroit, which was followed by a general surgery residency at Mount Carmel Mercy Hospital, Detroit, an affiliate of the University of Michigan.

He is board certified in thoracic surgery and general surgery.

ENT Teaching Day April 24 At WVU In Morgantown

Robert I. Kohut, M.D.

Kenneth D. Dolan, M.D.

The Department of Otolaryngology at West Virginia University Medical Center will sponsor its seventh annual Teaching Day on April 24, beginning at 8:30 A.M. at the Medical Center Auditorium in Morgantown.

The continuing medical education program is co-sponsored by the West Virginia Academy of Ophthalmology and Otolarynology.

The morning session will include presentations by otolaryngology residents and faculty. A paper by Captain Vincent Hyams, M. D., of Washington, D.C., Director of Otolaryngic Section at the Armed Forces Institute of Pathology, will conclude the morning session.

The afternoon-session speakers will be: Dr. Robert I. Kohut, Professor and Chairman, Section of Otolaryngology, Bowman Gray School of Medicine; Dr. Mansfield F. W. Smith of the Ear Medical Clinic of Santa Clara Valley, San

Speaking during the Saturday morning session on drugs at the 14th Mid-Winter Clinical Conference was (left photo) Carl J. Malanga, Ph.D., right, Morgantown. Shown with him are Drs. Donald S. Robinson (left), Huntington, who presided, and Joseph T. Skaggs, Charleston, Co-Chairman of the Program Committee. Shown on the right are two other speakers for the Saturday morning session, Drs. William C. Graham, left, Huntington, and Patrick A. Robinson, Charleston.

Jose, California; Dr. Jack R. Anderson of New Orleans, and Dr. Kenneth D. Dolan, Professor of Radiology, The University of Iowa Hospitals and Clinics.

A banquet at the Hotel Morgan will cap the day's activities. The guest speaker will be Craig R. Smith, Ph. D., of Washington, D.C., Director of Research for the Senatorial Campaign, National Republican Senate Committee.

Doctors Smith, Kohut, Anderson and Dolan then go to the Greenbrier in White Sulphur Springs for the annual meeting of the West Virginia Academy of Ophthalmology and Otolaryngology, April 26-29.

For further information, call Dr. Philip M. Sprinkle, Professor and Chairman, WVU Department of Otolaryngology, at (304) 293-3233/3457.

New State Health Director Assumes Duties

Dr. L. Clark Hansbarger assumed duties as State Health Director on February 2.

Doctor Hansbarger, a Welch native and former Medical Director of the Monroe (County) Health Center in Union, was appointed to the post on January 7 by Governor John D. Rockefeller IV.

He succeeds Dr. George E. Pickett, now on the teaching staff at the University of Alabama.

After his graduation from Welch High School, Doctor Hansbarger earned his bachelor's degree in economics at Duke University and then received his medical degree from the Medical College of Virginia.

He received four years of training at Cleveland's Metropolitan General Hospital and then spent one year in training at Children's Hospital in Boston. From there, Doctor Hansbarger went into the Navy for six years, serving as the Head of Pediatrics at the Naval Hospital in Portsmouth, New Hampshire, and at the National Naval Medical Center in Bethesda, Maryland.

Doctor Hansbarger joined the faculty at Case Western Reserve Medical School in Cleveland after his discharge from the Navy. While he was in Cleveland, he worked with the administration of former Mayor Carl Stokes in developing health programs. At Cleveland Metropolitan, Doctor Hansbarger was Director of Ambulatory Pediatrics and the Pediatric Nurse Clinical Program.

In 1972, Doctor Hansbarger returned to West Virginia under the National Health Services Corps program as Medical Director of the Monroe Health Center. As the clinic grew, he got out of the National Health Services program, which currently is sponsoring two corpsmen at the facility.

Doctor Hansbarger said he returned to his native state because he wanted to practice in a rural setting.

He served as Medical Director also at Andrew S. Rowan Memorial Home at Sweet Springs (Monroe County), a state facility which has a contract with the Monroe Health Center to provide medical services.

'Current Controversies in Medicine" was the topic for the Saturday afternoon session of the 14th Mid-Winter Clinical Conference held in Charleston in January. In the left photo, Dr. Charles E. Andrews (center), Morgantown, who presided, stands at the podium with two of the speakers, John C. Linton, Ph.D. (left), and Mohammed M. Boustany, M.D., both of Charleston. The other two speakers are shown in the right photo: Drs. Arthur L. Poffenbarger (left), Charleston, and G. Robert Nugent, Morgantown.

Medicaid Problems Receive Council Attention

The State Medical Association's Council, at its January 18 meeting, directed Dr. L. Walter Fix, the Association President; staff, and the Publication Committee to bring "appropriate legislative and administrative attention to Medicaid policies and problems which are causing continued difficulties in assuring accessibility to quality health and medical care for Medicaid recipients."

In other action, the Council:

—Endorsed appointment by Doctor Fix of Dr. Robert R. Rector, Elkins surgeon, as Councilor for District VI embracing Barbour, Randolph, Taylor, Tucker and Pocahontas counties. Doctor Rector was named to serve until the Association's Annual Meeting in August to succeed Dr. Vernon E. Duckwall, also of Elkins, who was elected to honorary membership and thus became ineligible for further Council service.

—Designated Dr. George A. Shawkey of Charleston, the Association's Treasurer, as administrator for the Association staff's insurance and retirement program.

—Elected to honorary membership, consistent with appropriate action taken by component societies, Doctor Duckwall from the Tygart's Valley Society; Drs. Thomas G. Folsom and Wilson O. Grim of Barboursville and Huntington, respectively (Cabell); Rank O. Dawson, Charleston (Kanawha); James D. Mathias, Wardensville (Potomac Valley), and Charles W. Nelson, Jr., Beckley (Raleigh).

—Changed from active member-dues exempt to retired status Drs. John J. Brandabur, Frank C. Hodges, U. C. Lovejoy, William K. Marple, Thomas W. Nale and George W. Walden, all members of the Cabell County Medical Society.

—Approved a one-year loan from Medical Association operating funds to West Virginia State Medical Association Properties, Inc., of $100,000 at 15-per cent interest, with provisos that the loan be made from 1981 funds if available; and that the loan would be callable at any time the Association might need that money for operating purposes.

—Referred to the Committee on Legislation a request by Claude A. Frazier, M. D., of Asheville, North Carolina, that the Association consider support of a model bill that would permit a trained lay person to administer injectable epinephrine in an emergency situation involving severe allergic reaction to an insect sting.

—Directed staff, contingent upon information obtained by consultation with Kanawha Medical Society and the West Virginia Chapter of the American Academy of Family Physicians, to poll the Association membership relative to interest in a physician-of-the-day program during legislative sessions.

—Heard from Mr. Lewis that a majority of Executive Committee and Council members did not look favorably upon an idea that federal

A panel on health maintenance organizations (HMOs)-individual practice associations (IPAs) constituted the concluding Sunday morning session of the 14th Mid-Winter Clinical Conference. Seated in the left photo are Don L. Arnwine, President of the Charleston Area Medical Center, who presided, and Mrs. Carol J. Miller, Beckley. Standing are, from left, Jacob J. Spies, Boston, Massachusetts; and Drs. John F. Otto, Huntington, and Frederick M. Cooley, Charleston. In the right photo, Charles G. Brown, J.D. (right), Charleston, the other member of the panel, chats over coffee with Dr. Isaiah A. Wiles, Morgantown.

legislation offering tax credits might be an effective incentive to attract and/or hold physicians to/in so-called medical shortage areas.

—Took note of Governor John D. Rockefeller IV's appointment of L. Clark Hansbarger, M. D., of Union to succeed George E. Pickett, M. D., as State Health Director, effective February 2, 1981, and heard a report from Mr. Lewis that Doctor Hansbarger looked forward to working with the Association and its members.

—Approved fund advances to the Woman's Auxiliary, and for golf, tennis and "minithon" competition, at the Association's Annual Meeting set for August 20-22 in White Sulphur Springs.

Frostbite Frolic Run Winners Named

Kim Reedy of Beckley and Frank Lewis of Charleston were the first- and second-place winners, respectively, in the third annual "Frostbite Frolic" 10,000-meter run on January 24 in Charleston.

The announcement was made by Dr. Alfred K. Pfister of Charleston, organizer of the race which was held in conjunction with the 14th Mid-Winter Clinical Conference January 23-25 in Charleston. There were 98 runners participating.

Thomas J. Murphy of Charleston, West Virginia University medical student, placed third in the run. He, along with Douglas G. Althouse of New Canaan, Connecticut, also a WVU medical student, were the first two medical students to finish.

The first medical doctor to finish was Dr. Mike Cuadra of the Charleston Area Medical Center Pathology Department.

The winning times were: Reedy, 33.04 minutes; Lewis, 35:26; and Murphy, 36:07.

"A balmy day with temperatures hovering close to the 60s was a welcome sight. . . ," Doctor Pfister commented.

Blood Banks Meeting

The West Virginia Association of Blood Banks will meet April 24-25 at West Virginia University Hospital in Morgantown.

Guest speakers will be Dr. Herbert Polesky of the Minneapolis War Memorial Blood Bank and Grace Neitzer, MT(ASCP)SBB, from the Baptist Memorial Blood Bank in Memphis, Tennessee.

Nutrition In Newborn Focus For Eighth Conference

The eighth annual Newborn Day, a conference on nutrition in the newborn, will be held March 27 at the Charleston Division, West Virginia University Medical Center.

Four out-of-state speakers will conduct the program, which will begin at 8 A. M. with registration and conclude at approximately 5:30 P. M.

The speakers and topics for the morning session will be "Human Milk and Formulas: Can You Tell the Difference?"—David K. Rassin, Ph. D., Associate Professor, Division of Developmental Nutrition and Metabolism, Department of Pediatrics, University of Texas Medical Branch, Galveston; "The Use of Human Milk in the Nursery"—Gordon B. Avery, M. D., Ph. D., Professor of Child Health and Development, George Washington University; and Director, Division of Neonatology, Children's Hospital National Medical Center, Washington, D. C.;

David K. Rassin, Ph. D.

"The Influence of Chemical Environmental Factors on Infant and Child Development"—L. J. Filer, M. D.. Professor of Pediatrics, University of Iowa, Iowa City; and "The Effect of Formula Composition on Acid-Base Metabolism of the Neonate"—Robert W. Winters, M. D., Professor of Pediatrics, Columbia University College of Physicians and Surgeons, New York City.

Subjects for the afternoon session will be "Taurine in Human Nutrition"—Doctor Rassin;

Gordon B. Avery, M. D., Ph. D.

Robert W. Winters, M. D.

"Salt and the Diet: Imprinting"—Doctor Filer; "Nutritional Support of the Small Premature"—Doctor Avery; and "The Effects of Total Parenteral Nutrition on the Neonate"—Doctor Winters.

Conference sponsors are the Department of Pediatrics, Charleston Area Medical Center, and WVU Charleston Division.

The program meets the criteria for six and one-half hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association; and also is approved for .8 Continuing Education Units (CEUs).

The fee, which includes lunch, will be $40 for physicians and $30 for nurses. There is no charge for residents and students. Others will be charged $40.

Herbert H. Pomerance, M. D., WVU Professor of Pediatrics and Chairman of Pediatrics, CAMC, will welcome conference participants. Moderator for the morning session will be Ellen Szego, M. D., Clinical Assistant Professor of Pediatrics, WVU Charleston Division; afternoon session, Thomas G. Potterfield, M. D., Clinical Professor of Pediatrics, WVU Charleston Division.

State Anesthesiologists To Meet In June

Guest speakers from three states will participate in the annual meeting of the West Virginia State Society of Anesthesiologists June 5-6 in Morgantown.

Guest speakers at the meeting, to be held at the Lakeview Inn and Country Club, will be Robert Bedford, M. D., University of Virginia Medical Center, whose topic will be "New Trends in Neuroanesthesia;" Julian Biebuyck, M. B., The Milton S. Hershey Medical Center, Hershey, Pennsylvania, "Anesthesia and Liver Failure;"

Betty Grundy, M. D., University of Pittsburgh, "Monitoring the Neurosurgical Patient;" and Francis James III, M. D., Bowman Gray School of Medicine, Winston-Salem, North Carolina, "Obstetric Anesthesia."

Speakers from the Department of Anesthesiology at West Virginia University Medical Center will include Harakh V. Dedhia, M. D., whose subject will be "High Frequency Ventilation-Jet Ventilation."

For more information, contact Richard B. Knapp, M. D. (Secretary-Treasurer, WVSSA), Professor and Chairman, WVU Department of Anesthesiology.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal).

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

March 20-21, Morgantown, Neuroscience Teaching Days

March 27, Charleston, 8th Annual Newborn Day

April 24, Morgantown, ENT Teaching Day

May 8-9, Morgantown, WV Radiological Society

May 9, Charleston, Surgical Use of Blood and Blood Components

May 14-15, Morgantown, Health Officers Seminar

June 5-6, Morgantown, Anesthesia Update '81

June 6, Charleston, 8th Wildwater Surgical Conference

June 11-12, Morgantown, Chondromalacia Symposium

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, Upshur-Buckhannon Middle School, 3rd Thursday, 7-9 P. M. — March 19, "Management of Chronic Pain," John Zeedick, M. D.

April 16, "WVU Professional Day." (Four concurrent presentations for physicians, nurses, pharmacists and dentists. Topics and speakers to be announced.)

May 21, "Special Problems of the Elderly" (A special mental health training program. Speakers to be announced.)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M. — March 11, "Preventive Medicine," John Pearson, M. D.

April 8, "Venereal Diseases," Patrick Robinson, M. D.

May 13, "Peptic Ulcer Disease: Diagnosis, Treatment and Complications," William McMillan, Jr., M. D.

June 10, "Dealing with Emotional Problems in the Clinical Setting" (A special mental health training program. Speakers to be announced.)

Oak Hill, Oak Hill High School (Oyler Exit, N 19), 4th Tuesday, 7-9 P. M. — March 24, "Interpretation and Management of Common Cardiac Arrhythmias," Maria Georgiev, M. D.

April 28, "WVU Professional Day." (See *Buckhannon* above.)

May 26, "Dealing with Death and Dying" (A special mental healtth training program. Speakers to be announced.)

Welch, Stevens Clinic Hospital, 3rd Wednesday, 11 A. M.-1 P. M. — March 18, "Problems of the Elderly" (A special mental health training program. Speakers to be announced.)

April 15, "Chronic Pain Unresponsive to Conventional Therapy," John Zeedick, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A.M.-1 P.M. — March 25, "Behavioral Health: Recognition and Referral of Severely-Handicapped Problems." (A special mental health training program. Speakers to be announced.)

Williamson, Appalachian Power Company Auditorium, 1st Thursday, 6-8 P. M. — March 5, "Recognition and Management of Asthma," N. LeRoy Lapp, M. D.

April 2, "WVU Professional Day." (See *Buckhannon* above.)

May 7, "The Abusing Family" (A special mental health training program. Speakers to be announced.)

Delegates Report On AMA Interim Meeting

The following material represents a report by West Virginia's delegation on activity during the Interim Meeting of the American Medical Association's House of Delegates in San Francisco in December. The delegation includes Drs. Frank J. Holroyd of Princton and Richard E. Flood of Weirton, State Medical Association Delegates to the AMA House; and Harry S. Weeks, Jr., Wheeling, and Jack Leckie, Huntington, Alternate Delegates.

The House considered 69 reports and 86 resolutions on a broad range of issues.

One delegate commented on the fine quality of the reports submitted to the House and we believe those sentiments are shared by the majority of the delegates throughout the country. Reports from the Board of Trustees and the AMA councils are timely and well-researched papers on virtually every item of current interest to the practicing physician.

Buoyed by the results of the national elections, the delegates' mood could be described as optimistic. The House sessions were generally free of controversy as the delegates assumed a "wait-and-see" attitude in anticipation of the new administration in Washington.

However, the House did come to grips with some major issues of widespread concern to our members. Major issues before the House included:

— Professional Standards Review Organizations.

— Health Planning Laws.

— Women physicians in organized medicine.

— Graduate medical education.

— Membership and finances.

Professional Standards Review Organizations

After much discussion and a close vote, the House approved a restated AMA position on PSRO. The shift in policy reflected a strong grassroots dissatisfaction with PSRO and its failure to achieve its stated goals of improving the quality of care. The delegates voted: ". . . to continue professionally-directed efforts to ensure that care provided to patients is of high quality, appropriate duration, and rendered in an appropriate setting at a reasonable cost, and to encourage the elimination of all government-directed peer review programs including PSRO."

(Continued on Next Page)

Health Planning Laws

In a similar vein, the delegates stiffened their opposition to federal regulation in health care stemming from Public Law 93-641, the National Health Planning Resources Development Act.

The House took action calling for the AMA to support immediate cessation of funding for the health planning law and cause repeal legislation to be introduced into the next Congress. The AMA will call upon the state medical associations for assistance in passing this legislation.

The House also said that HMOs should not be exempted from equal application of the health planning laws.

In addition, the policy statement called on the AMA to develop principles for a program of voluntary, locally-based health planning designed to address local needs with local resources.

Women Physicians In Organized Medicine

After a year of work, including a comprehensive scientific survey of women physicians' attitudes, the Ad Hoc Committee on Women Physicians in Organized Medicine submitted its recommendations. The House considered this report, along with a Board report that accompanied it.

Among the several recommendations, one calling upon the Association to endorse the Equal Rights Amendment generated the most discussion. The Board's position was opposed to ERA endorsement, saying that this was a political rather than medical issue. Most House members agreed. However, the members of the Ad Hoc Committee pointed out many times that 85 per cent of the women physicians would like for the Association to take this action.

As it turned out, the whole matter was referred back to the Board with the House asking the Trustees to give priority attention to: 1. Employment of a full-time AMA staff person to coordinate activities associated with the special interests and concerns of women physicians; and 2. Appointment of a three-year committee to monitor the progress of women's participation in organized medicine.

Another report on these issues will be considered by the House at the 1981 Annual Meeting in Chicago in early June.

Graduate Medical Education

Responding to a major effort of the Resident Physician Section, the House delayed approval of new guidelines for accrediting graduate medical education. The AMA now represents more than 20,000 resident members.

The resident physicians reported that the proposed revision in the *Essentials of Accredited Residencies in Graduate Medical Education* would dilute the original standards and weaken their position in graduate training programs.

The existing *Essentials* — favored by the resident physicians — remain in effect.

The Board of Trustees, dissatisfied with the portion of the revised *Essentials* pertaining to housestaff rights, privileges, and responsibilities, will re-open negotiations with the other parent bodies of the Liaison Committee on Graduate Medical Education (LCGME).

Membership And Finances

The House approved a budget for 1981 with anticipated revenues and expenses of $69 million. The House fully expects to consider a dues increase at the 1981 Annual Meeting.

There is a prevailing concern among the delegates that revenues from AMA memberships

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Basic Histology, 3rd Edition, by Luis C. Junqueira, M. D.; and Jose Carneiro, M. D. 504 pages. Price $15.50. Lange Medical Publications, Los Altos, California 94022. 1980.

Current Medical Diagnosis & Treatment 1981, edited by Marcus A. Krupp, M. D.; and Milton J. Chatton, M. D. 1100 pages. Price $21. Lange Medical Publications, Los Altos, California 94022.

Current Obstetric and Gynecologic Diagnosis and Treatment, 3rd Edition, by Ralph C. Benson, M. D. 1001 pages. Price $21. Lange Medical Publications, Los Altos, California 94022. 1980.

Novak's Textbook of Gynecology, 10th Edition, by Howard W. Jones, Jr., M. D.; and Georgeanna Seegar Jones, M. D. 871 pages. Price $48. The Williams & Wilkins Company, P. O. Box 969, 300 Idlewild Avenue, Easton, Maryland 21601. 1981.

have not kept pace with the impact of inflation on the Association's expenses.

You will recall that consideration of a dues increase was postponed for a year mainly due to effective financial management.

In 1974, the AMA was borrowing about $1 million a month to meet its payroll. Today, the AMA has a net worth of $67 million and is, for the moment, in strong financial condition.

All of us need to do more to increase AMA membership. Ask your colleagues if they belong, and encourage them to commit themselves to supporting our national association.

Obviously, with so many items of business, we can only touch briefly on a few of major interest.

AMA House meetings provide a unique educational opportunity and we would encourage you to attend and participate. Any member of the Association may present testimony at the reference committee hearings and, of course, corridor discussions on the issues provide ample opportunities to get your views across.

If you can't come to the meeting, you can still be represented through your delegate. Let your delegation know your opinions. You can also prepare a resolution and request that it be submitted to the House.

Many, many AMA policies began with an individual physician who had a good idea and coaxed it through the democratic process.

Pediatric Urological Problems March 28 Meeting Theme

Common pediatric urological problems will be discussed at the meeting of the West Virginia State Urological Society on March 28 at Barboursville.

The meeting will be held at the Gateway Holiday Inn from noon to 5:30 P. M., followed by a dinner.

Subjects will include undescended testes, unstable neurogenic bladder, reflux nephropathy, and enuresis.

Serving as faculty will be Drs. Stanley J. Kandzari and John A. Belis of the Department of Urology at West Virginia University Medical Center in Morgantown, and Drs. Rafael E. Molina, Tara Sharma, Gary G. Gilbert and Harold N. Kagan, all of Huntington and all members of the clinical faculty of the Marshall University School of Medicine.

The guest speaker for the dinner will be Dr. Evan C. Kass, Chief of Pediatric Urology, Children's National Medical Center, Washington, D. C.

The program is approved for four hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association.

There will be no registration fee for members of the urological society, residents, students and nurses. The fee for others will be $20.

There will be a separate charge of $12.50 for the dinner.

For additional information, contact Charles W. Jones, Ph. D., MU School of Medicine CME Director, at (304) 696-4822.

Medical Groups Schedule Education Congress

Public interest in medicine and in medical education will be the theme of the 77th Congress on Medical Education and Licensure April 23-25 in Chicago (Palmer House).

The annual congress will be sponsored by the American Medical Association, Association for Hospital Medical Education, and Federation of State Medical Boards of the United States.

Today, with changes in work patterns, government and the economy, the public has grown more actively interested in what was once largely the concern only of physicians. These include such areas as the essential characteristics of a profession, how the professional is distinguished from other members of the work force, what a professional knows and what he does.

M. T. Jenkins, M. D., of Dallas, Chairman of the AMA Council on Medical Education, will open the congress and present the panel to discuss public interest in professionalism. Panelists will be Judge George N. Leighton of the U.S. District Court and Arturo G. Ortega, attorney and former public member of the Liaison Committee on Medical Education.

The public also has gained much closer interest in medical education. There is now public concern with such questions as admissions and promotions, selection of faculty, special-interest teaching in the medical curriculum, and the accreditation process.

Further information on the congress is available from the office of Dr. John Fauser, Medical Education Group, American Medical Association, 535 N. Dearborn Street, Chicago, Illinois 60610.

Compensation Fund Outlines Change In Procedure

The Workmen's Compensation Act mandates that temporary total disability benefits be terminated upon notification by the treating physician that a claimant has reached maximum medical recovery. The Fund realizes this places a financial burden on some claimants, and also creates problems for the physician's office. The Compensation Fund offers the following material as an effort to relieve this dilemma.

As part of the Fund's continuing effort to expedite all aspects of claims processing, a procedural change has been made to insure prompt handling of those claims where maximum medical recovery has been certified and the injured worker remains unable to resume employment.

As part of the new procedure, the treating physician will receive a copy of the notification to the claimant suspending temporary total disability benefits so as to keep the physician aware of action being taken in his patient's claim. Also, the claimant will be referred immediately for an evaluation to determine the degree of disability if no further treatment is indicated. In this regard, however, a shortage of physicians doing special examinations for the Fund continues to be a problem.

To avoid claimants in this situation from going a long period without benefits, the Fund is requesting its Special Examiners to schedule such claimants for evaluation as quickly as possible.

To alert the Examiner as to which claims fall into this category, the examination request to the physician will be stamped in red, "Priority Scheduling Requested." It is hoped the examiners, whom we realize have extremely busy schedules, will cooperate in this effort as they have in other matters concerning the Fund's operations.

Additional information concerning procedural changes within the Fund will appear in the April issue of *The Journal.*

Welfare Fee Adjustment

Just before press time, State Finance Commissioner Arnold Margolin told the House Finance Committee that the Rockefeller Administration budget bill submitted to the 1981 Legislature contained $500,000 in the Department of Welfare account to increase fees for physician office visits under the medical service program from $7 to $10.

Medical Meetings

March 7-11—Am. Academy of Allergy, San Francisco.

March 8-12—Society of Head & Neck Surgeons; and Am. Society for Head & Neck Surgery, Phoenix, Ariz.

March 23-25—Am. Society of Abdominal Surgeons, Tampa, Fla.

March 23-27—Am. Roentgen Ray Society, San Francisco.

March 28—WV State Urological Society, Barboursville.

April 4—WV Branch #41, Am. Med. Woman's Assn., Huntington.

April 6-9—Am. College of Physicians, Kansas City, Mo.

April 8-11—Tenn. Med. Assn., Knoxville.

April 10-12—WV AAFP Scientific Assembly, Charleston.

April 15-16—WV Chap., Am. Academy of Pediatrics, Huntington.

April 22-30—Am. College of Obstetricians & Gynecologists, Las Vegas.

April 24-25—WV Assn. of Blood Banks, Morgantown.

April 24-26—Pediatric Springfest (MCV Dept. of Pediatrics), Richmond, Va.

April 26-29—WV Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 30-May 2—WV Chapter, Am. College of Surgeons, White Sulphur Springs.

April 30-May 2—Am. Society of Clinical Oncology, Washington, D. C.

May 6-9—Va. Society of Ophthalmol. & Otolaryngol., Inc., Virginia Beach.

May 10-13—Am. Thoracic Society, Detroit.

May 10-13—Am. Lung Assn., Detroit.

May 10-14—Am. Urological Assn., Boston.

May 16-20—Ohio State Med. Assn., Cleveland.

May 31-June 5—First WV School of Behavioral Health Studies (WV Dept. of Health), Morgantown.

June 5-6—WV State Society of Anesthesiologists, Morgantown.

June 7-11—AMA House of Delegates, Chicago.

Aug. 20-22—114th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.

Oct. 1-4—ASIM, New York City.

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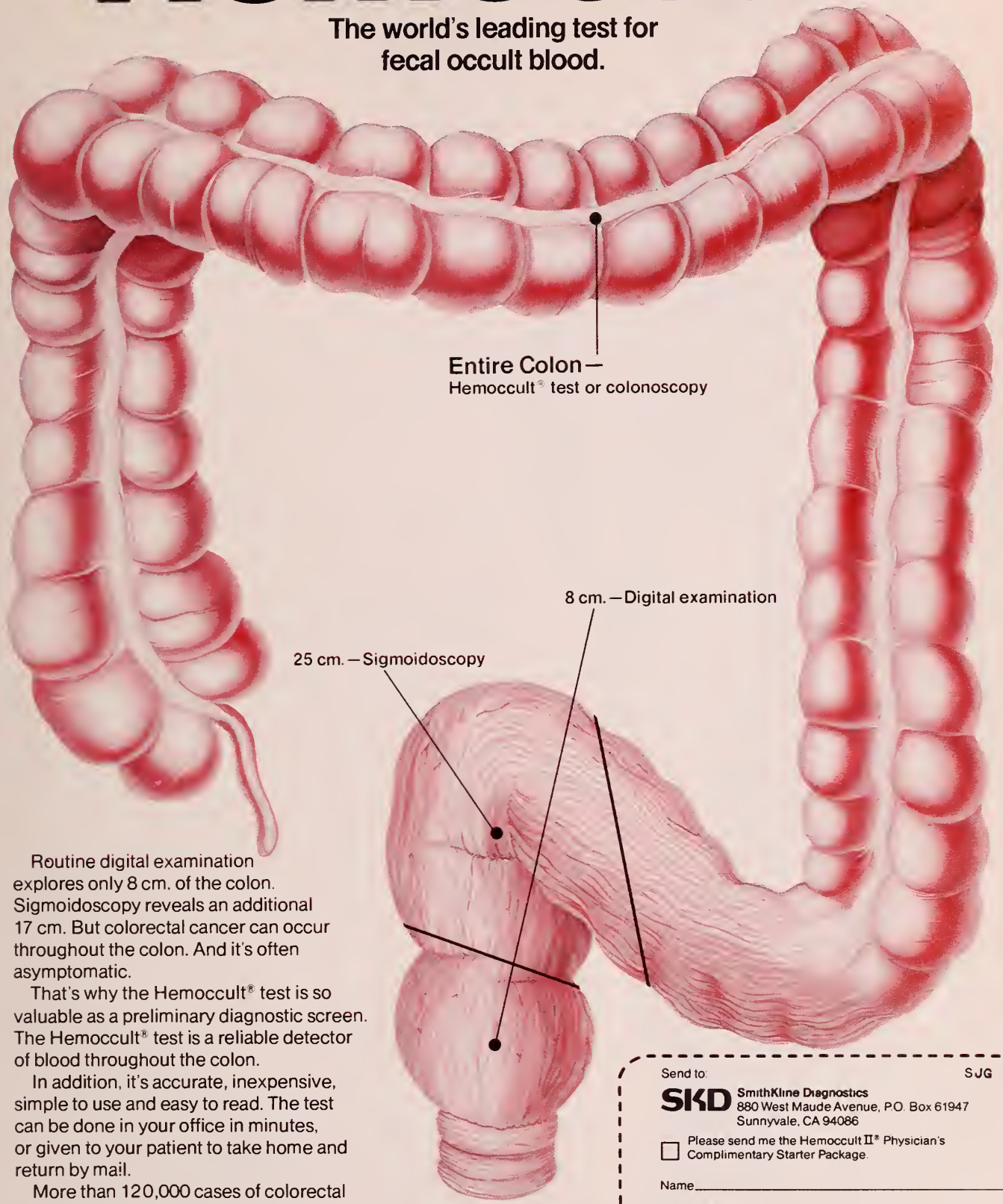

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WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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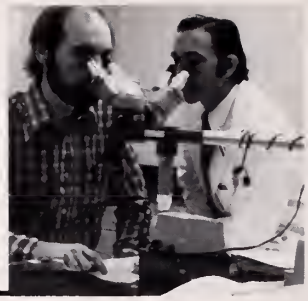
–News–



Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Orthopedics Faculty Grows From Two To Six

Orthopedics is one of the fastest-growing services at WVU Medical Center, and has strengthened Morgantown's status as a major referral center for orthopedic problems.

A year ago, when the Department was being reorganized under a new chairperson, only 15 per cent of 30 adult orthopedic beds at WVU Hospital were normally occupied. The figure is now closer to 85 per cent.

Full-time orthopedic faculty members in the School of Medicine number six. In the past there were only two. Six orthopedists in private practice in Morgantown also serve as clinical faculty and are much involved in the teaching and service programs.

Eric L. Radin, M. D., came to WVU from the Harvard Medical School in 1979 to reorganize the Department after it had been without a chairperson for six months.

"We built on a very strong base," Doctor Radin said. "Morgantown has always been a referral center for orthopedics—we've just enlarged on it. We can now handle twice as many patients and we've brought in some physicians with very special skills."

The faculty includes specialists in bone diseases and injuries of the hand and the foot, bone tumor, arthritis surgery, spinal surgery and childhood skeletal deformities. The clinical faculty includes specialists in sports medicine and a trauma service for complicated fractures.

Doctor Radin said he was persuaded to come to West Virginia "basically by the orthopedic community who wanted to augment the consultation facilities available in the state, help with difficult problems and to improve the quality of the residency training.

"They thought those goals could be served best by bringing in a person with a strong academic background," he explained.

"Charleston, Huntington, Wheeling and some other West Virginia cities have fairly sophisticated orthopedic communities, but there are still problems which sometimes require consultation with the subspecialties," Doctor Radin said.

Doctor Radin, whose specialties include foot problems, sees patients with complicated foot problems referred by both general physicians and orthopedists "and who want advice or perhaps need to have some very sophisticated things done.

"It's reassuring for physicians to know there's someone they can send difficult problems to," he said. "We're seeing patients from a long way away and with very special kinds of problems. In the past many of these patients were sent long distances out of state, so this makes a real difference to West Virginia."

Ulcer Decrease Described By Doctor Manier

Good news for harassed executives—duodenal ulcer is on the decrease in western civilization.

And surprisingly, there's not been an increase of the disease among females, although a greater incidence could be expected as larger numbers of women compete with men for higher paying, more stressful employment.

James W. Manier, Professor of Medicine and Chief of the Section of Gastroenterology, believes the decrease may indicate that mankind may be learning to live with stress, at least as far as part of the digestive tract is concerned.

"Some people think—and this is just a theory—that the decrease in duodenal ulcer may reflect the ability of populations to compete in our industrialized society," he said. "In developing nations, duodenal ulcer is on the increase, but it began to decrease in England perhaps 10-15 years before the trend hit the United States.

"Evidence of a decrease is based not only on national statistics on outpatients, but is also seen in complications which would be treated in the hospital. As a result, we believe these figures are quite valid. It's not very likely we'd miss statistics in the hospital."

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Third-Party News, Views and Program Concerns

Ambulatory Surgery Push Announced By BC-BS

The nation's 110 member plans of the Blue Cross and Blue Shield Associations soon will "promote aggressively" ambulatory surgery when medically appropriate, according to a newly-approved BC/BS policy. The eight-page document urges plans to work with local physicians and "to encourage cost-conscious professional and institutional practice patterns by linking payment incentives or sanctions to settings and procedures."

American Medical Association policy adopted at its 1980 Interim Meeting is consistent in some respects with the new BC/BS policy. AMA policy urges state, county and specialty societies to encourage the use of the least expensive setting in which medical and surgical procedures can be performed safely and effectively. AMA policy also asks private section insurance companies to reimburse for costs incurred, as well as for professional services.

The AMA noted that costs for surgical items in an outpatient setting were not addressed in the BC/BS policy. The AMA also expressed concern with the way in which the policy will be implemented locally, as well as with wording that supports health planning processes and determinations of need.

Local Needs Losing Ground In Health Planning

The federal health planning program has evolved into a system of regulatory cost controls with decreasing regard for local needs, the American Medical Association said in a letter to the National Council on Health Planning and Development. Decision-making authority has been transferred from the local to the federal level, the AMA said, resulting in the development of "a network of quasi-regulatory agencies more responsive to federal directives and concerns—short-term cost containment goals—than to the health and medical needs of the communities purportedly served."

Responding to a letter from the council, the AMA cited the House of Delegates' action last December calling for repeal of the health planning program. With the beginning of a new Administration, the AMA letter said, the council has an opportunity to reassess the present system and "give active consideration to the alternative of a locally-based, voluntary health planning system."

The AMA pointed out that it called for repeal of the health planning law shortly after enactment and has tried for six years to improve the program. The letter stressed that the policy calling for repeal does not diminish the Association's support for the concept of voluntary, community-based health planning. The AMA offered to share its proposals for developing local initiatives with the national council.

Medical Education Advisory Body's Status Unclear

The decision by Patricia Harris, former Secretary of the U. S. Department of Health and Human Services, not to recharter the Graduate Medical Education National Advisory Committee (GMENAC) was a setback for supporters who wanted to make the Committee a permanent advisory group, the American Medical Association has noted.

The committee last year issued a lengthy, controversial report urging reductions in medical school enrollments.

The AMA opposed making GMENAC permanent. An AMA task force warned that this would make it more likely that GMENAC recommendations would be readily transformed into federal regulations.

Harris' move leaves the option open to new HHS Secretary Richard S. Schweiker to proceed on GMENAC's status. The House-passed Health Manpower bill last year contained a provision cementing GMENAC's status, but the Senate bill was silent on the subject.

Obituaries

JOHN C. (CAM) EAKLE, M. D.

Dr. John C. (Cam) Eakle of Sutton died on January 17 in a Buckhannon hospital. He was 74.

A general practitioner, Doctor Eakle had practiced in Sutton for 45 years.

A graduate of West Virginia University, he received his M. D. degree in 1934 from the Medical College of Virginia. He interned at Grant Hospital in Columbus, Ohio.

A native of Braxton County, Doctor Eakle was named Braxton County Citizen of the Year in 1976.

He was a member of the Central West Virginia Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include the widow; three sons, John C. Eakle of Canton, Ohio; James P. Eakle of Sutton and Charles B. Eakle of Folkston, Georgia; a brother, Charles B. Eakle of Huntington, and two sisters, Mrs. Edith Jenson and Mrs. Elizabeth Strickler, both of Sutton.

* * *

HAROLD H. KUHN, M. D.

Dr. Harold H. Kuhn of Big Pine Key, Florida, formerly of Charleston, died on January 29 in Big Pine Key. He was 66.

Doctor Kuhn was a retired Assistant Director, Medical Services, West Virginia Board of Vocational Education, Division of Vocational Rehabilitation. He also was a past Medical Director of the former Division of Crippled Children's Services in the West Virginia Department of Welfare, and a West Virginia Workmen's Compensation Fund Examiner from 1946 to 1974.

Doctor Kuhn was certified by the American Board of Orthopedic Surgery, and was a Fellow of the American College of Surgeons.

A native of Malden (Kanawha County), he was graduated from Duke University and received his M. D. degree from that institution's School of Medicine. He also received his full specialty training at Duke University Hospital.

Doctor Kuhn was an honorary member of the Kanawha Medical Society, the West Virginia State Medical Association and the American Medical Association.

(Continued on page xviii)

County Societies

FAYETTE

The Fayette County Medical Society met on February 4 at Montgomery General Hospital.

Dr. Robert Long, Beckley urologist, gave an interesting discussion about incontinence in elderly patients.—Honoroto M. Aguila, M. D., Secretary.

* * *

MARION

The Marion County Medical Society met on January 27 at the Fairmont Field Club.

Two representatives of the West Virginia Workmen's Compensation Fund, John Farley and Joseph Stone, provided a very informative overview of the role of that office. They pointed out recent innovations and improvements which they feel have helped the functioning of the Fund.—William L. Mossburg, M. D., Secretary.

* * *

CABELL

The Cabell County Medical Society met on January 8 at the Gateway Holiday Inn in Barboursville.

The guest speaker was Mr. Bob Smith, Executive Vice President of the Chamber of Commerce of Huntington.

The Society approved the appointment of Dr. Sidney Schnitt as its representative to the Medical Advisory Committee of the Marshall University School of Medicine.—Maurice A. Mufson, M. D., Secretary.

* * *

McDOWELL

The McDowell County Medical Society met on January 14 in Welch at the Candlelight Restaurant.

A video program on "Prostaglandins and Experimental Inflammation" was presented by Mr. John Whitmore of Merck Sharp & Dome. This program dealt with the chemistry, biosynthesis, metabolism and clinical pathology of prostaglandins.

The Society approved a donation of $50 to the West Virginia University Medical School Chapter of the American Medical Student Asso-

(Continued on page xviii)

Book Review

EVERY WOMAN'S HEALTH: THE COMPLETE GUIDE TO BODY AND MIND — Edited by D. S. Thompson, M. D. 776 pages. Price $19.95. Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10017. 1980.

This thick book is a review of subjects of potential concern to women, related to their health. It deals rather little with disease except to give some guidelines as to how and when to go about receiving care.

It is divided into two parts: the first consisting of 19 chapters on selected topics; the second an encyclopedia of health and medical terms. The selected topics include: nutrition, fitness, sexual health, contraception and abortion, pregnancy and childbirth, breast care, cosmetic surgery, drugs, alcohol and tobacco, spouse and child abuse, emotional health, and changes with increasing age.

The style in writing avoids being technical and difficult while remaining adult. The approach is candid but not polemical. The book is both comprehensive and comprehensible.

Many male physicians would benefit from an evening browsing through the book to refresh their understanding of the concerns of their female patients. Medical students of both sexes are recommended to read it through. A copy in the waiting room to be lent to middle class patients could be appreciated. Women's book clubs could choose it profitably for one (or more) of their meetings. For those without a college education, however, there may be rather small demand for this book.—R. John C. Pearson, M. B.

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Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert)
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
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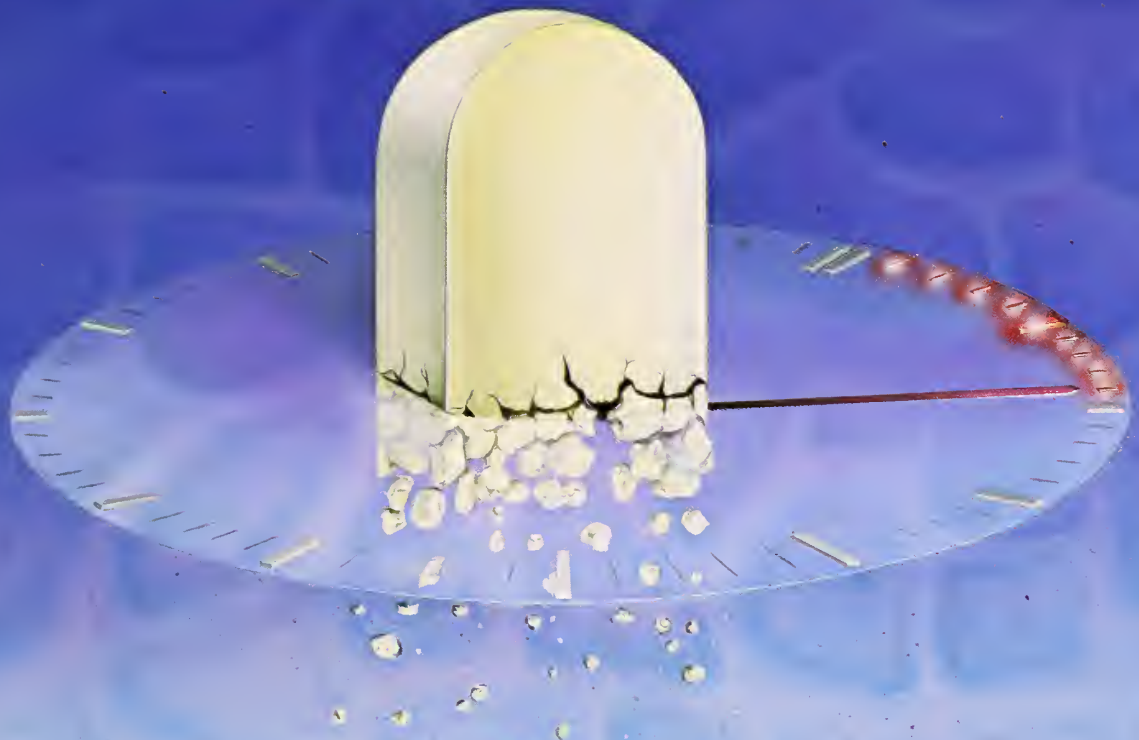
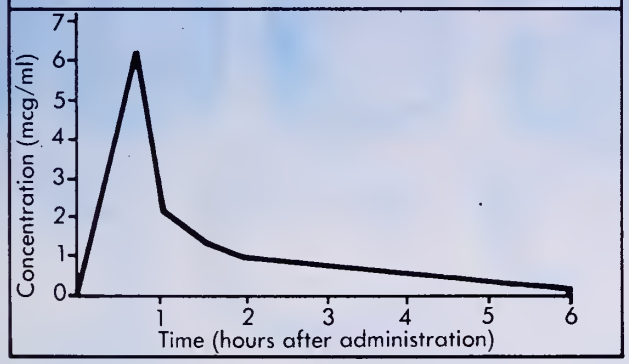


Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



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*Based on T^{α} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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OBITUARIES—*Continued*

Survivors include the widow, Dr. Beatrice H. Kuhn; three daughters, Mrs. John R. Fowler of Charleston, Mrs. Wade A. Bowman of Chicago and Mrs. Richard H. Ashley of Big Pine Key; a sister, Mrs. Robert O. Alexander of Charleston; and three brothers, Charles J. Kuhn and Ira F. Kuhn, both of Charleston, and Clayburn C. Kuhn of Chillicothe, Ohio.

COUNTY SOCIETIES—*Continued*

ciatiton for its annual projects.—Muthusami Kuppusami, M. D., Secretary.

* * *

WESTERN

The Western Medical Society met on January 13 in Ripley at Jackson General Hospital.

Dr. Aaron D. Cottle of Spencer, Society President, announced that, as of January 12, the city of Spencer had fluoridated water, thanks to the recommendations of the members of the Society during its November meeting.

There was discussion on memberships, Society organizational matters, and possible meeting sites.—Ali H. Morad, M. D., Secretary.

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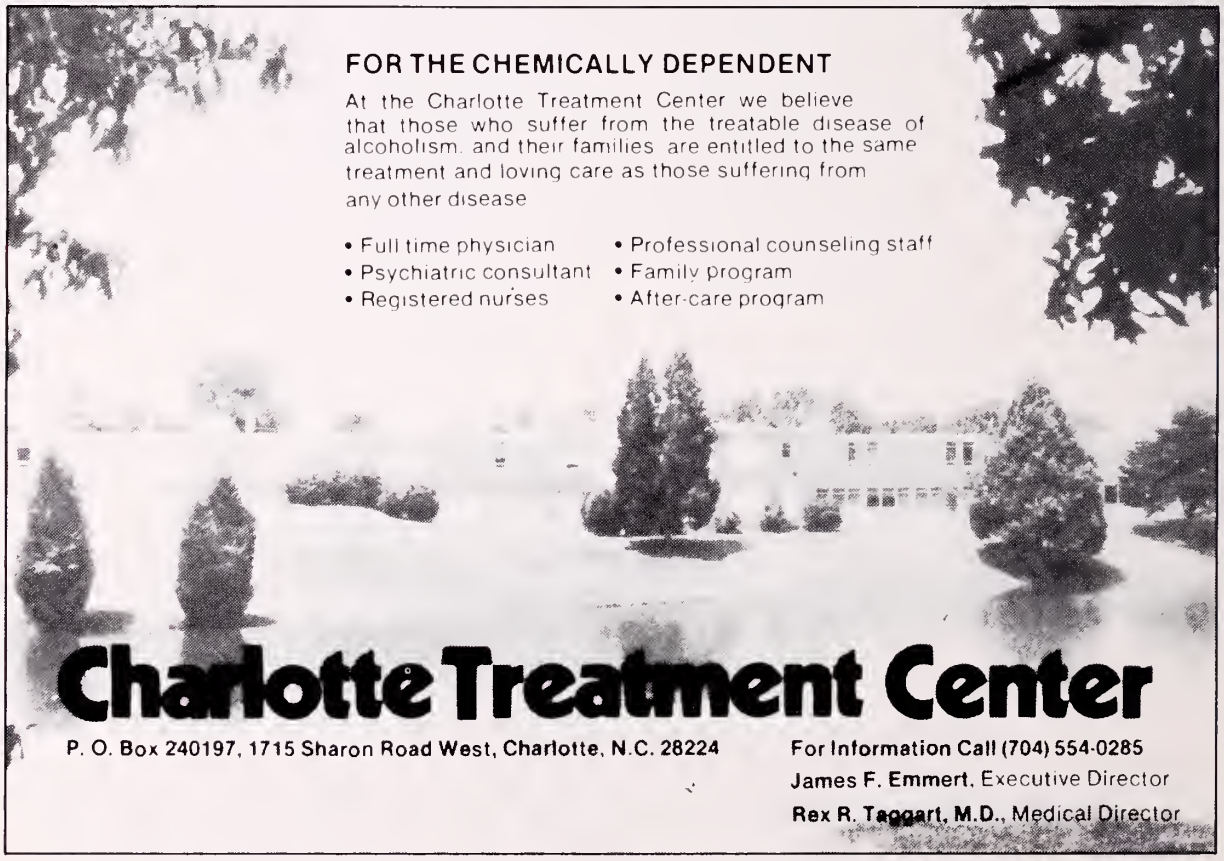

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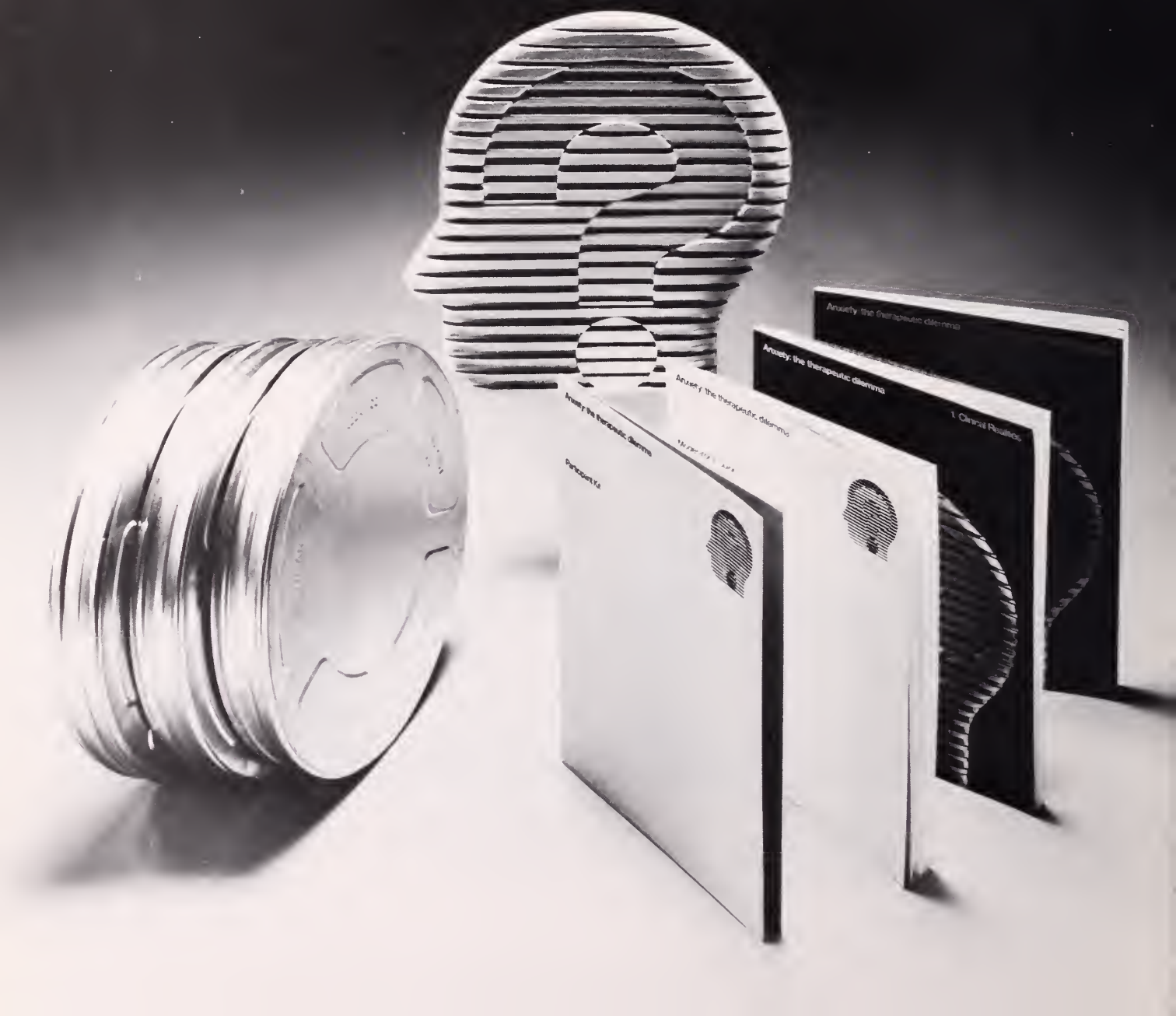

Ideas about anxiety management are changing. Problems have surfaced. There is concern about dependence on minor tranquilizers and new findings on receptor sites in the brain. There is a trend toward short-term therapy and interest in nondrug alternatives. Because anxiety can disable, the need to treat continues in daily practice. Primary care physicians require up-to-date information.
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AUGUST 20-22, 1981

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Federal Health Programs Marked For Cuts

Many federal health programs are marked for heavy cuts by the Reagan Administration, observes the American Medical Association. One target is health planning, which would be phased out over the next two years. The budget cut for next fiscal year would be $75 million.

The Reagon budget team said, "This policy action would be consistent with a two-year Administration timetable for development and implementation of a pro-competitive bill for health financing reforms." Planning was criticized in the document for lack of effectiveness, inappropriate regulation, and for federal intrusion on state and local responsibilities.

The budget document recommends that federal payments for Medicaid be held to a level $100 million below the spending estimate for the current fiscal year. A five-per cent increase would be allowed in fiscal 1982, $1 billion below the current estimate of the program's cost to the federal government. After 1982, the federal contribution increase would be limited to an inflation index. The document predicts that most states will object strongly to the imposition of the federal cap, which is characterized as "a temporary measure while proposals for fundamental reforms are developed."

The budget team also proposed elimination of all new scholarship awards for the National Health Service Corps. The paper said that remaining problems of access to primary care are being reduced rapidly and probably will be eliminated within the next few years. It said that physicians in increasing numbers are voluntarily locating in smaller communities.

The Public Health Service hospital system would be wiped out under another proposal. The present entitlement of merchant seamen "to free medical care at public expense is inequitable and unwarranted," according to the budget paper. A program of eliminating the eight PHS hospitals and clinics would save $100 million next fiscal year and eliminate 5,000 federal jobs.

An Administration official said money requests for health maintenance organizations and professional standards review organizations are scheduled for reductions. He said the National Institute of Health would be frozen at current spending levels.

OFFICERS OF COMPONENT SOCIETIES

Society	President		Secretary		Meetings
Boone	Probhand Chinuntdet	Madison	Manuel T. Uy	Madison	3rd Wed.
Brooke	Rogelio L. Velarde	Follansbee	Wm. T. Booher, Jr.	Wellsburg	
Cabell	Robert C. Nerhood	Huntington	Maurice A. Mufson	Huntington	2nd Thurs.
Central West Virginia	John A. Mathias	Buckhannon	Joseph B. Reed	Buckhannon	As Sched.
Eastern Panhandle	Harvey D. Reisenweber	Martinsburg	Orlando I. Agnir	Martinsburg	2nd Wed.
Fayette	Daniel B. Doyle	Scarbro	Honorato M. Aguila	Oak Hill	1st Wed.
Greenbrier Valley	Richard F. Carter	White Sulphur Spgs.	Dale G. Knutson	Ronceverte	2nd Wed.
Hancock	Thomas J. Beynon	Weirton	Irwin M. Bogarad	Weirton	3rd Tues.
Harrison	Cordell A. de la Pena	Clarksburg	Carlos A. Naranjo	Clarksburg	1st Thurs.
Jefferson	Mildred L. Williams	Charles Town	Vettivelu Maheswaran	Ranson	1st Wed.
Kanawha	Echols A. Hansbarger, Jr.	Charleston	Donald E. Farmer	Charleston	2nd Tues.
Logan	Abelard A. Pelaez	Logan	Herbert D. Stern	Logan	2nd Wed.
Marion	William L. Mossburg	Fairmont	E. G. Cadogan	Fairmont	Last Tues.
Marshall	Jesus T. Ho	Moundsville	Jose J. Ventosa	Glen Dale	1st Tues.
Mason	Montrie Chaksupa	Point Pleasant	Richard L. Slack	Point Pleasant	4th Tues.
McDowell	Ross M. Patton	Gary	M. Kuppusami	Welch	2nd Wed.
Mercer	G. D. Duremdes	Princeton	David F. Bell, Jr.	Bluefield	3rd Mon.
Mingo	Russell A. Salton	Williamson	Edward B. Headley	Delbarton	2nd Wed.
Monongalia	Roland J. Weisser, Jr.	Morgantown	Paul J. Jakubec	Morgantown	1st Tues.
Ohio	Milton E. Nugent	Wheeling	Robert L. Joseph	Wheeling	4th Tues.
Parkersburg Academy	A. Paul Brooks	Parkersburg	Ghassan A. Khalil	Parkersburg	1st Thurs.
Potomac Valley	Jeffrey S. Life	Romney	Sadtha Surattanont	Romney	2nd Wed.
Preston	Frederick A. Conley	Kingwood	C. Y. Moser	Kingwood	4th Thurs.
Raleigh	James A. Barnes	Beckley	Jose L. Oyco	Beckley	3rd Thurs.
Summers	Chandra P. Sharma	Hinton	T. H. Mirza	Hinton	3rd Mon.
Tygart's Valley	C. Z. Villaraza	Grafton	Michael M. Stump	Grafton	3rd Thurs.
Western Med. Soc. of WV	Aaron D. Cottle	Spencer	A. H. Morad	Ripley	Bi-Monthly
Wetzel	Donald A. Blum	New Martinsville	K. M. Chengappa	New Martinsville	Monthly
Wyoming	Frank J. Zsoldos	Mullens	George F. Fordham	Mullens	Quarterly

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WANTED—Mountaineer Family Health Plan, a pre-paid primary care program needs a general/family practitioner or internist for ambulatory patient care. Licensure in West Virginia required. Financial arrangements are negotiable. Call or write Douglas E. Tolbert, Executive Director, 228 Mellon Street, Beckley, WV 25801. Telephone: (304) 252-8551.

PHYSICIAN WANTED—An experienced practitioner to add to and work with an established group in Charleston. Excellent working conditions with regular hours and minimal night work. Liberal vacation, sick leave and holiday program. Pension plan, Social Security, and professional liability insurance coverage. Apply Charles E. Staats, M. D., 123 West Washington Street, Charleston, WV 25302 —Telephone: (304) 346-0381.

WANTED—Board eligible or certified Obstetrician/Gynecologist needed for small town of 6,000. Modern hospital with latest equipment to work with available. Financial arrangements and office space negotiable. Contact J. N. Vallandingham, Administrator, Summers County Hospital, Hinton, WV 25951. Telephone: (304) 466-1000.

WANTED—Emergency Physician to join 3 others in staffing ER with 12-14,000 annual visits in small rural community. Good salary with full benefits package including paid vacations, paid educational leave, and educational allowance. Clean mountainous environment. Contact Alan Fuller, Memorial General Hospital Assoc. Inc., 1200 Harrison Avenue, Elkins, WV 26241; Telephone: (304) 636-2900.

FAMILY PRACTICE OPENINGS — Pendleton County offers the rural medical practice challenge you are seeking. Located in the picturesque Eastern Panhandle town of Franklin are a group of active and interested businessmen and citizens committed to recruiting and financially supporting the establishment of new practices. This opportunity is worth exploring! Contact George I. Sponaugle, President of Pendleton Industries, Franklin, WV 26807. Telephone: (304) 358-2337.

PSYCHIATRIST WANTED—To fulfill the critical need in West Virginia Mental Institutions. Qualification: Board eligibility, with a desire to become Board Certified. MUST BE DEDICATED, ability to take the initiative, be productive, and work harmoniously with all personnel. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

WANTED—Two emergency service physicians to join a four-member group on a private fee for service practice basis at a 215-bed community hospital located in Princeton, West Virginia. Contact Tom Benoit, Associate Administrator, Princeton Community Hospital, Princeton, WV 24740. Telephone: (304) 425-2434.

WANTED—Physician to fulfill the critical needs in West Virginia's State Institutions. Qualification: A permanent license to practice medicine in West Virginia and three years of full-time paid experience. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

WANTED—A physician for the twin towns of Harpers Ferry and Bolivar, West Virginia—about 8 miles from Charles Town, where there is a hospital. Serving a population of 1500. Twin towns located in scenic mountain area, good fishing and Harpers Ferry National Park—approximately 1½ hours' drive from Washington, D. C. Contact Mr. Reid V. Geronimo, President Bolivar Civic Association, Route 1, Box 5, Harpers Ferry, WV 25425. Telephone: (304) 535-6528.

EMERGENCY ROOM PHYSICIAN—Immediate opening for full-time career-oriented Emergency Physician needed for 250 bed, newly built Bluefield Community Hospital, to join the established Emergency Medical Group, Inc. Flexible schedule, salary negotiable, group offers pension plan, life and disability insurance, medical and liability insurance, vacation and educational benefits. Please contact Surrinder K. Chopra, M.D., Chief, Emergency Medicine, Bluefield Community Hospital, Bluefield, WV 24701. Telephone: (304) 327-2511.

WANTED—Young physicians for growing town with diversified industry. Major coal expansion. West Virginia Wesleyan College. Good place to live. Town of over 7,000. Rural setting. Pleasant surroundings easily accessible to multiple recreation areas. Modern hospital. Cooperative medical staff. Openings for several family practitioners preferrably interested in obstetrics; pediatrician and Ob-Gyn specialist. Contact Joseph B. Reed, M.D., 93 West Main Street, Buckhannon, WV 26201. Telephone: (304) 472-6041.

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Just one tablet b.i.d. for 10 to 14 days

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- Contraindicated during pregnancy and the nursing period. During therapy, maintain adequate fluid intake; perform CBC's and urinalyses with microscopic examination.

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* **It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination.** *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

The recommended quantitative disc susceptibility method (*Federal Register, 37*:20527-20529, 1972) may be used to estimate bacterial susceptibility to Bactrim. A laboratory report of "Susceptible to trimethoprim-sulfamethoxazole" indicates an infection likely to respond to Bactrim therapy. If infection is confined to the urine, "Intermediate susceptibility" also indicates a likely response. "Resistant" indicates that response is unlikely.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; pregnancy; nursing mothers; infants less than two months of age.

Warnings: Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L. E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

Urinary Tract Infections: Usual adult dosage—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days.

Recommended dosage for children—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. A guide follows:

Children two months of age or older:

Weight		Dose—every 12 hours	
lbs	kgs	Teaspoonfuls	Tablets
20	9	1 teasp. (5 ml)	½ tablet
40	18	2 teasp. (10 ml)	1 tablet
60	27	3 teasp. (15 ml)	1½ tablets
80	36	4 teasp. (20 ml)	2 tablets or 1 DS tablet

For patients with renal impairment:

Creatinine Clearance (ml/min)	Recommended Dosage Regimen
Above 30	Usual standard regimen
15-30	½ the usual regimen
Below 15	Use not recommended

Pneumocystis carinii pneumonitis: Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40, available singly and in trays of 10. *Oral suspension,* containing in each teaspoonful (5 ml) the equivalent of 40 mg trimethoprim and 200 mg sulfamethoxazole, fruit-licorice flavored—bottles of 16 oz (1 pint).

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Bactrim has shown high clinical effectiveness in recurrent cystitis as a result of its wide spectrum and distinctive antimicrobial action in the urinary, vaginal and lower intestinal tracts.

The probability of recurrent urinary tract infection appears to be enhanced by the establishment of large numbers of *E. coli* or other urinary pathogens on the vaginal introitus. The trimethoprim component of Bactrim diffuses into vaginal fluid in effective concentrations, thus combating migration of pathogens into the urethra.

Studies have shown that Bactrim acts against *Enterobacteriaceae* in the bowel without the emergence of resistant organisms. Thus, Bactrim reduces the risk of introital colonization by fecal uropathogens. It has *no* significant effect on other normal, necessary intestinal flora.

Bactrim fights uropathogens in the urinary tract/vaginal tract/lower intestinal tract

Please see reverse side for summary of product information.

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The West Virginia Medical Journal

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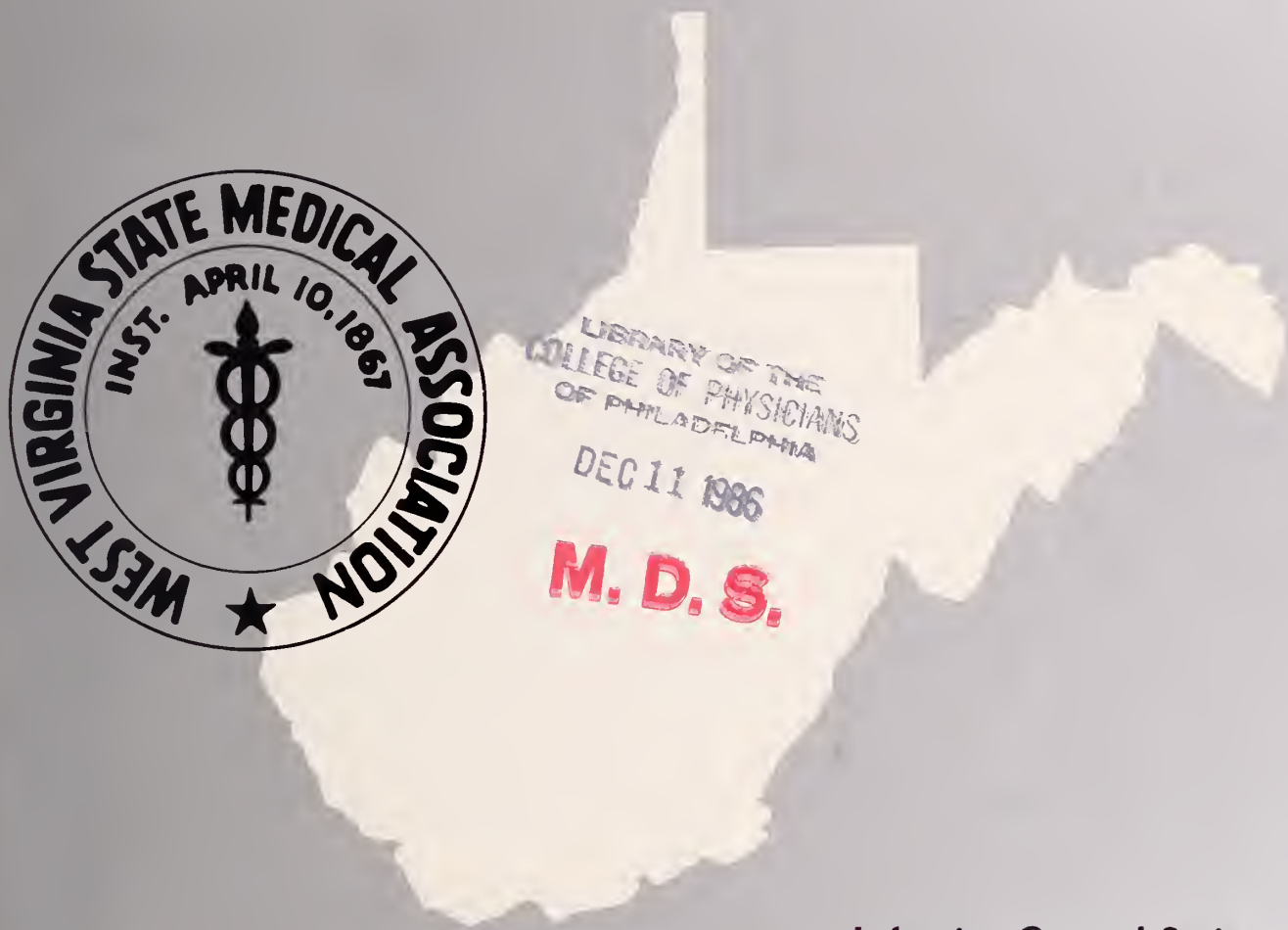

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Infection Control Series
Pages 77-88

114th Annual Meeting, The Greenbrier
August 20-22, 1981

Volume 77 Number 4
April 1981

Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) ®, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10.

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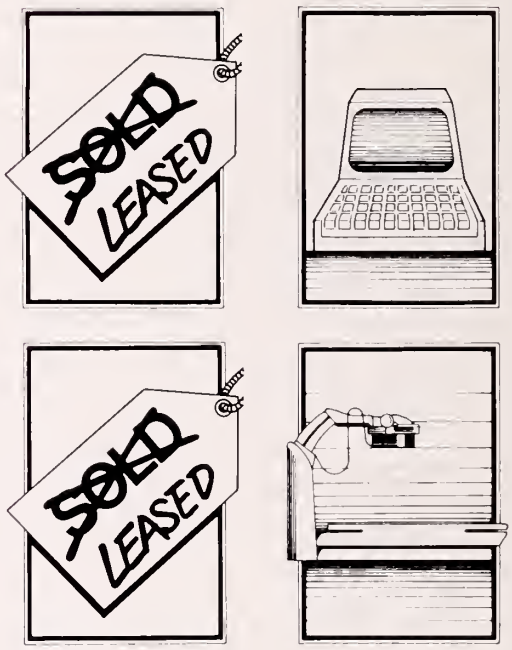

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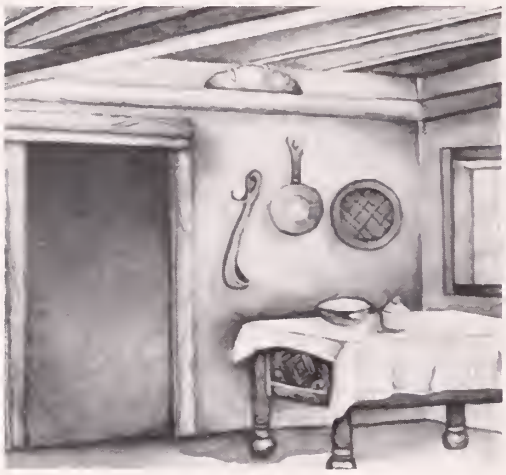
Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]

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for the treatment* of known or suspected staphylococcal infections such as:

- Acute sinusitis
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In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]

Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.

Tegopen® (cloxacillin sodium)
Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

Tegopen®
(cloxacillin sodium)
Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information consult Official Package Circular (12) 9/11/75

INDICATIONS

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected (See Important Note below)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci Group A beta-hemolytic streptococci and penicillin G-resistant and penicillin G-sensitive staphylococci If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing approximating the high percentage of resistant staphylococcal isolates found in the hospital For this reason it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing Such strains of staphylococci have been capable of producing serious disease in some instances resulting in fatality Because of this there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently) Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus

CONTRAINDICATIONS

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication

WARNING

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin Before therapy with a penicillin careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins and other allergens If an allergic reaction occurs the drug should be discontinued and the patient treated with the usual agents e g pressor amines antihistamines and corticosteroids

Safety for use in pregnancy has not been established

PRECAUTIONS

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound as with other antibiotics If superinfection occurs during therapy appropriate measures should be taken

As with any potent drug periodic assessment of organ system function, including renal hepatic, and hematopoietic should be made during long-term therapy

ADVERSE REACTIONS

Gastrointestinal disturbances such as nausea epigastric discomfort flatulence and loose stools have been noted by some patients Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made Skin rashes and allergic symptoms including wheezing and sneezing have occasionally been encountered Eosinophilia, with or without overt allergic manifestations has been noted in some patients during therapy

USUAL DOSAGE

Adults 250 mg q 6h

Children 50 mg /kg /day in equally divided doses q 6h Children weighing more than 20 kg should be given the adult dose Administer on empty stomach for maximum absorption

N B INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS

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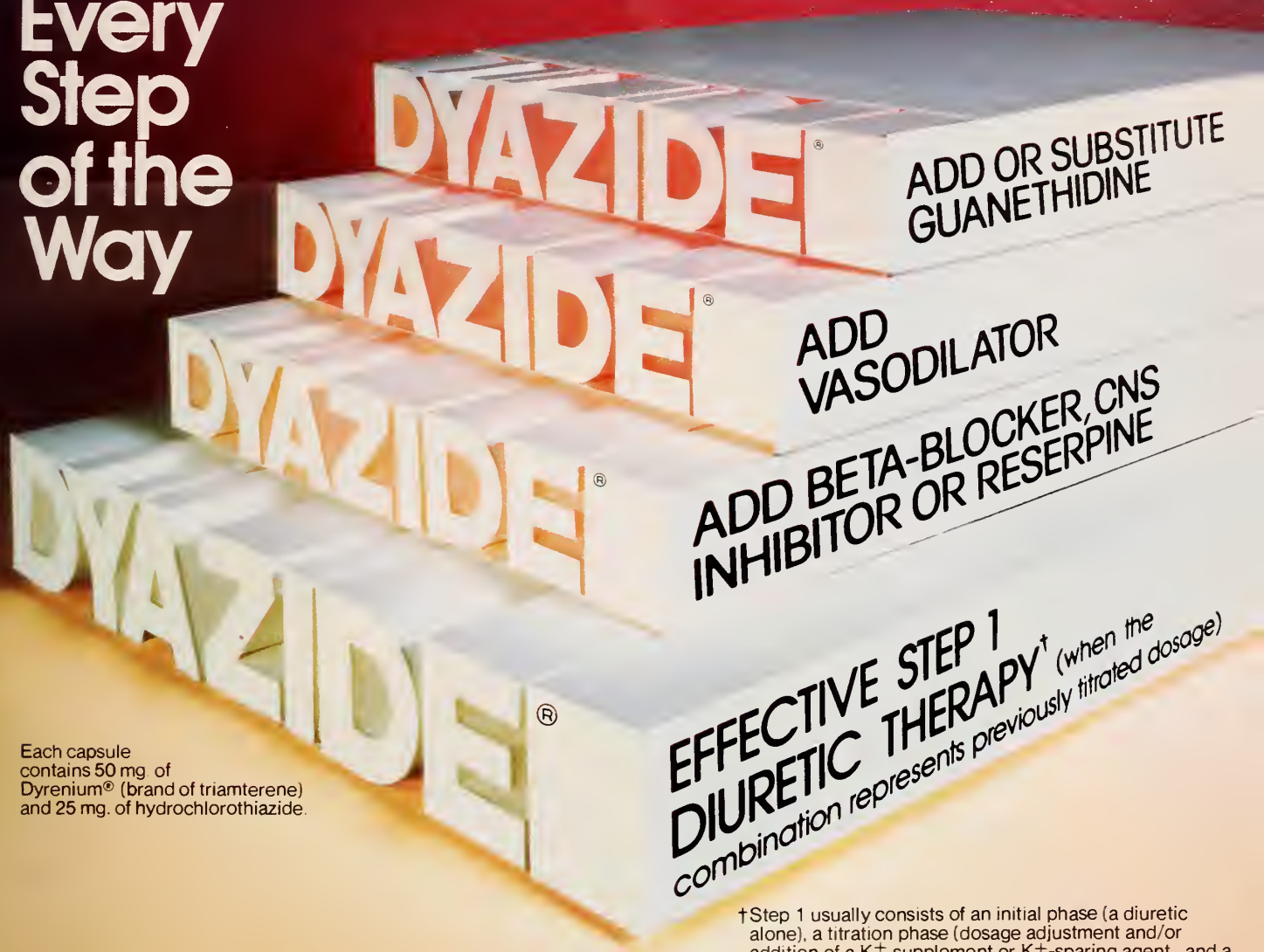

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently: both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in postsympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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Motrin® vs aspirin w/codeine...
(ibuprofen)

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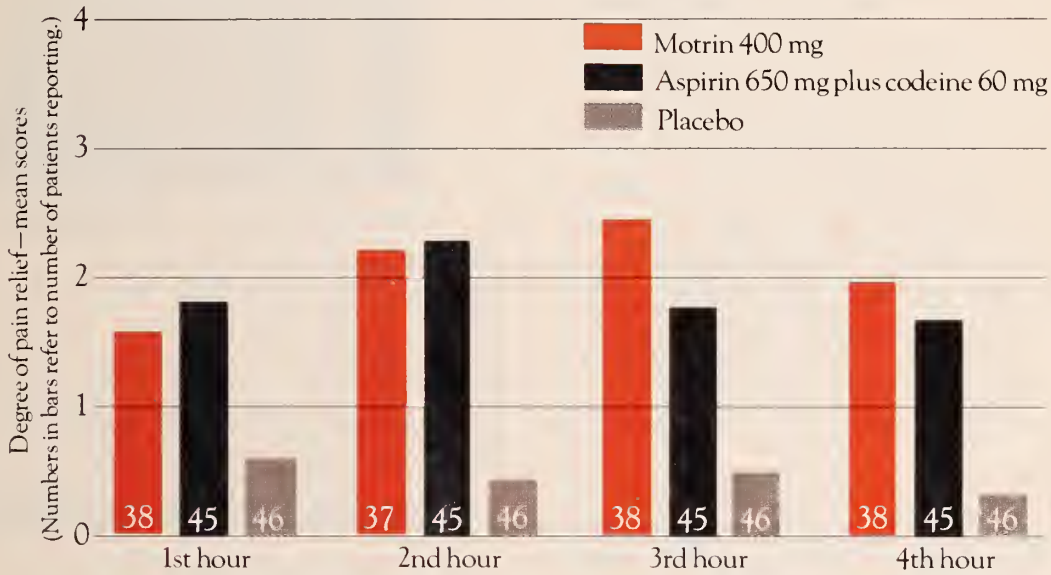
compare the analgesic effect

A *Motrin* 400 mg dose relieved postsurgical dental pain as effectively as a combination of 650 mg aspirin and 60 mg codeine (two aspirin-with-codeine No. 3 tablets) in a study of 129 patients. In this double-blind, placebo-controlled, randomized study, no statistically significant difference in relief of pain was noted at 1, 2, and 4 hours between the *Motrin* and aspirin-with-codeine groups... with *Motrin* being significantly more effective ($p = 0.03$) at the three-hour interval. Active treatment was significantly more effective ($p < 0.0001$) than placebo at all time intervals.

Comparison of pain relief
Motrin vs aspirin-codeine combination

4 = Excellent relief 3 = Good relief 2 = Fair relief 1 = Poor relief 0 = No relief



Time after drug administration (hours)

Data on file at The Upjohn Company.

One tablet q4-6h prn
For relief of mild to moderate pain:

Motrin® 400 mg TABLETS
ibuprofen, Upjohn

• Not a narcotic • Not addictive • Not habit forming • Nonscheduled • Acts peripherally • Relieves pain rapidly • Relieves inflammation • Indicated in acute and chronic pain • Well tolerated (The most common side effect with *Motrin* is mild gastrointestinal disturbance.)

Please turn the page for a brief summary of prescribing information.

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Motrin® (ibuprofen) now proved an effective analgesic for mild to moderate pain

Motrin® Tablets (ibuprofen, Upjohn)

Indications and Usage: Relief of mild to moderate pain.

Treatment of signs and symptoms of rheumatoid arthritis and osteoarthritis during acute flares and in long-term management. Safety and efficacy have not been established in Functional Class IV rheumatoid arthritis.

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d.
Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.
Do not exceed 2400 mg per day.

Caution: Federal law prohibits dispensing without prescription.

For additional product information, see your Upjohn representative or consult the package insert.

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MARCH 1981

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Career: Attorney

Age: 29

Married: One daughter

Interests: Hiking, writing, cartooning, bicycling and volunteering for United Way

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"Like being with my family. Hiking along the timberline. And getting involved in my community.

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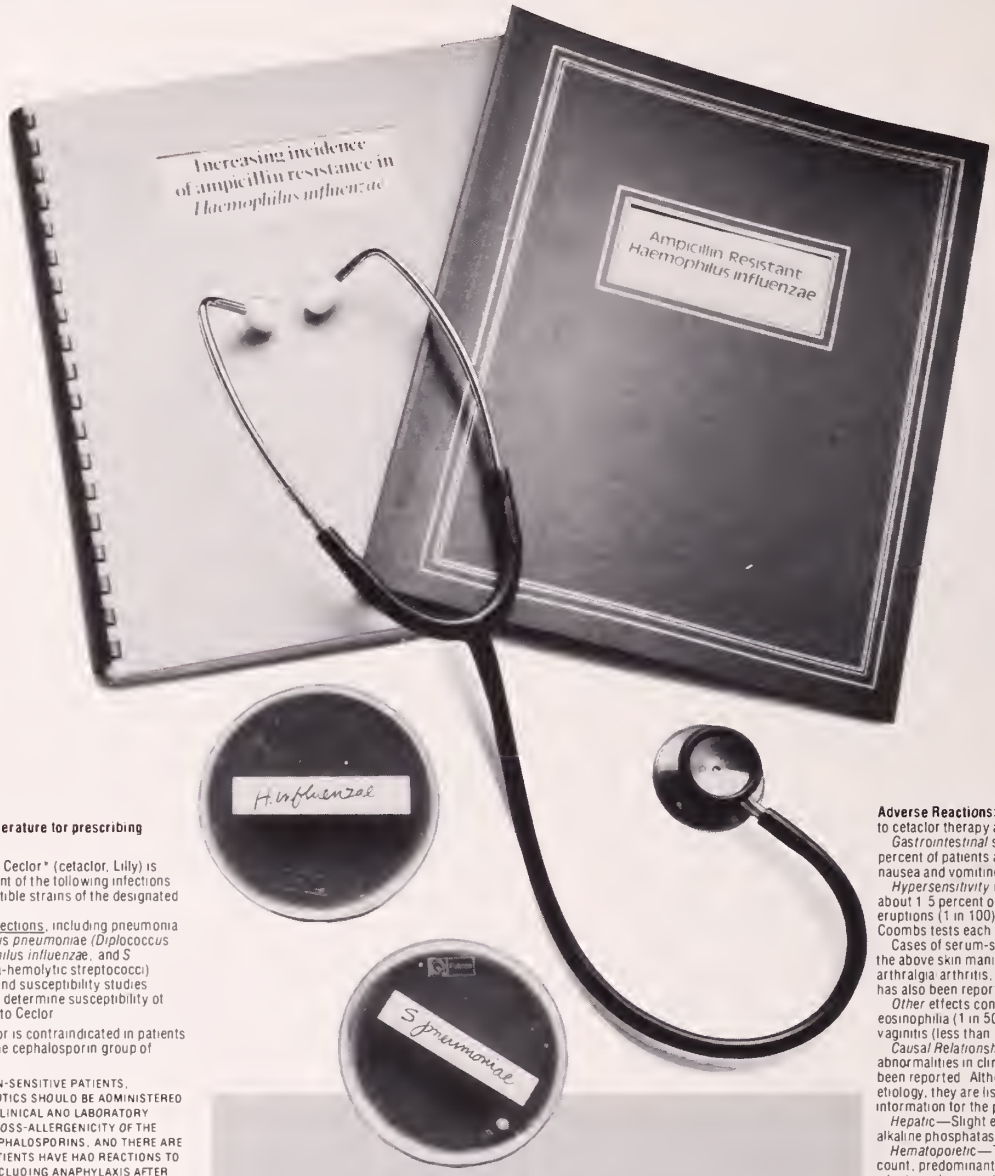
An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [1030808]

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* *

Note Ceclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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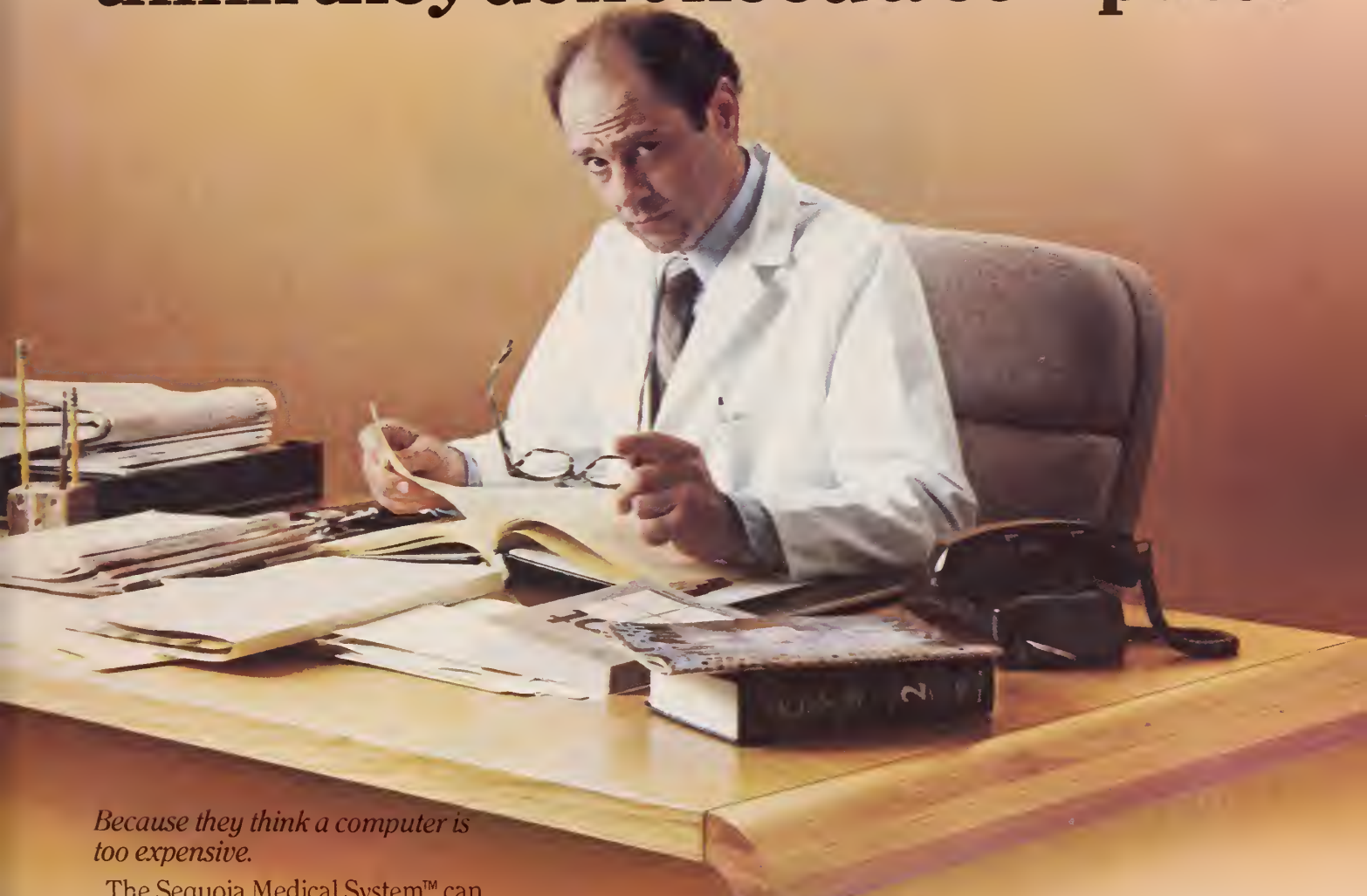

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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The West Virginia Medical Journal

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An Introduction: Contemporary Topics In Infection Control*

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(*Editor's Note: The West Virginia Medical Journal* will publish in this and the May Issue four manuscripts presented during a Symposium on Infection Control at Marshall University in Huntington in October, 1980. The first two papers, by Charles L. Yarbrough, M. D., and Kenneth S. Scher, M. D., follow this introduction. The other two, by Roger F. Leonard, M. D., and Maurice A. Mufson, M. D., will be offered in May.)

The Joint Commission on Accreditation of Hospitals has mandated that accredited hospitals maintain an active hospital infection control program. The reasoning behind this requirement is sound. In most modern community hospitals, approximately one in 50 patients develop an infection which is directly related to their hospitalization. The cost of these infections is high. For example, in 1978, a surgical wound infection cost an average of $1,300 per patient and it extended the average hospital stay by 6.5 days.** This estimated cost included only the laboratory and hospital bed, and excluded any professional fees. The cost of a hospital-acquired pneumonia was $878 per patient, and a urinary tract infection added $146 to the hospital charges.

Due to the rapid, escalating expense of hospitalization, the cost of nosocomial infections in 1981 will be even greater. Moreover, the impact of nosocomial infections on morbidity and mortality cannot be estimated. Prevention of hospital-acquired infection can contribute in a major way to containment of medical-care costs.

"Infection Control in the Tri-State Area II," an annual conference co-sponsored by the Marshall University School of Medicine and the West Virginia Chapter of the American Practitioners in Infection Control (WV-APIC), was held in Huntington October 9-10, 1980. The purpose of the conference was to bring new information on the subject of hospital-acquired infection and its control to physicians and nurses in the State of West Virginia.

The conference focused on several specialized topics. Diagnosis and therapy of skin infections through observation of the patient was discussed by Charles L. Yarbrough, M. D., in his presentation of "Skin Manifestations of Selected Infectious Diseases." Patients undergoing total parenteral nutrition are at high risk for blood stream infections, and Kenneth S. Scher, M. D., reviewed the basis for prevention of infections in these patients. Roger F. Leonard, M. D., reviewed the use of aminoglycoside antibiotic levels in the management of patients with serious gram negative infections. Maurice A. Mufson, M. D., detailed a plan for in-hospital use of pneumococcal vaccine in high-risk patients to protect them from pneumococcal infection.

*Proceedings from a Symposium on Infection Control in the Tri State Area, October 9-10, 1980, Huntington, West Virginia.

**Scheckler WE: Hospital costs of nosocomial infections: A prospective three-month study in a community hospital. *Inf Control* 1:150-152, 1980.

The obligations of an infection control program included physician time, especially an infectious diseases specialist; salary for a registered nurse to conduct surveillance, and a monthly meeting for representatives from the medical staff, pharmacy, laboratory, nursing, building management services and other areas of hospital organization. Based on the estimate that a 300-bed hospital requires one and one-half health care professionals working full-time on an infection control program, the costs to the hospital are $20,000 to $25,000 each year. By contrast, the high cost of nosocomial infections makes this investment a sound one for the hospital. Prevention of only 30 nosocomial infections per year would result in a dollar savings to patients equal to the cost of the control program. Moreover, the program would result in improved patient care and reduced suffering.

We hope that the efforts of this conference and the publication of these proceedings contribute to improved hospital infection control in the State of West Virginia and maintain the high standards of care set forth by our health care institutions.

Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 ½ by 11 in.) white paper. Wide margins (at least 1 ¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and a reasonable number of references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

Infection Control Series: I. Skin Manifestations Of Selected Infectious Diseases

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Herpes Zoster and Varicella

The etiology of both of these conditions is *herpes varicellae* (varicella-zoster virus or V-Z virus). Other human members of the herpes virus family include *herpesvirus hominis* (herpes simplex virus), human cytomegalovirus, and Epstein-Barr virus (infectious mononucleosis virus). Varicella (chickenpox) is the term used to describe the primary (initial) infection with *h. varicellae*. Zoster (shingles) is a reactivation of latent varicella-zoster virus infection. The virus remains dormant in sensory ganglia after the viremia of chickenpox and later causes a localized or, at times, a disseminated cutaneous eruption.

Clinically, we are more likely to see herpes zoster infection in the older age group, but it does occur in childhood. There is an increased association of zoster with underlying lymphomas such as Hodgkins' disease.[1] Zoster, especially of the ophthalmic variety, may be quite serious in patients with lymphoma. Disseminated zoster occurs more frequently in patients with underlying neoplastic disease.

The diagnostic tip-off in localized zoster is the dermatomal pattern of the rash which follows one or two dermatomes unilaterally. Pain, which often is shooting and extends from the midline of the back around the body, is one of the first signs of the disease. Following the onset of this pain, painful red, grouped papules and papulovesicles (herpetiform) with associated lymphadenopathy develop in the dermatome(s). Subsequently, hemorrhagic vesiculo bullous lesions occur with crusting and oozing. Upon healing, these lesions may form scars and also may be associated with post-herpetic neuralgia. The latter syndrome may persist for six to 12 months or longer.

The frequency of dermatomal involvement with zoster is shown in Table 1. In zoster which is not "disseminated," it is not unusual to see an occasional papulovesicle distant from the primary site or primary dermatome. Up to eight or 10 vesicles can be found in distant sites without zoster being classified as "disseminated."

The differential diagnosis of zoster in the early stages can be quite difficult, and zoster may be mistaken for other diseases before the typical eruption appears. Table 2 shows the differential diagnosis of early zoster. Early vesicles must be searched for carefully in order to make a timely diagnosis.

Post-herpetic neuralgia is most common in elderly patients and occurs in 30 per cent of patients over the age of 40.[2] It most commonly involves the trigeminal nerve dermatome. The course is usually limited, although it may be very severe and disabling and long-lasting at times.

Treatment of herpes zoster[3] involves the relief of pain, soaking the localized lesions, and trying to dry these with drying lotions. In the acute condition where there are blisters and crusting, Burows solution three to four times a day for 30 minutes can be used. Pouring this solution on the skin that is already covered with soaked gauze is not recommended. Rather, intermittent soaking with new gauze that has been wet in the solution is preferred. Hot soaks or electric water baths are not recommended.

TABLE 1
Dermatomal Involvement in Herpes Zoster Eruptions

Dermatome	*Frequency (%) of Involvement*
Thoracic	53
Cervical	20
Trigeminal	15
Lumbosacral	11

TABLE 2
Differential Diagnosis of Early Herpes Zoster

Dermatome Involved	*Differential Diagnosis or Sign and Symptom*
Thoracic	Intraabdominal or intrathoracic (pleuritic) pathology
Trigeminal	Keratitis (ocular pain) Iritis (rare) Facial palsies Toothache Bulbar palsies

A drying lotion such as a zinc talc lotion can be used following such soaks. *Avoid astringents, cleansers and disinfectants, as they may irritate the skin and cause dermatitis.* Whether oral steroids are indicated in severe cases of the herpes zoster is controversial. Some authors feel that prednisone, in a dose of 40 mg per day for the first week, decreasing by 10 mg per week for a total of three weeks of therapy, might be beneficial. A well-controlled study,[4] however, has shown no difference in healing of zoster lesions when patients were treated with steroids, although the duration of post-herpetic neuralgia was shortened. Steroids must be used with care as they may place the patient at increased risk for dissemination of the V-Z virus.[5] Certainly, steroids should not be used routinely in zoster, and under no circumstances should they be used in hosts with compromised immune defenses.

Scabies

The etiology of scabies in man and animals is the mite of the family Sarcopitdae. The *Sarcoptes* causing scabies in man is *S. scabiei*, var. *hominis*.

The ecology of this mite is quite interesting. The fertilized female burrows into the outer dead layer of skin (stratum corneum) and deposits eggs (10 to 20 eggs or more) over a period of several days. The female then dies and larvae emerge in three to four days. The fully-developed larvae are found in about two weeks on the skin surface in crusted areas. The epidemiology of scabies involves cyclical fluctuations. An epidemic occurred in 1944-46 and also in 1963. The current epidemic has run for several years. The reasons for this cyclical tendency are unknown, but factors such as war conditions seem to favor spread of the mites.

Transmission of the mite occurs with close personal contact. There does not seem to be a significant amount of spread via clothing or bedding. The mite cannot survive for more than a few days (probably hours) away from the warm, human body.

Clinically, the diagnostic hallmark of scabies is severe itching which will awaken the patient from sleep at night. The common areas of involvement in adults are the hands and wrists (85 per cent) and penis and scrotum (30-40 per cent). The papules and burrows which usually are seen are very diagnostic and occur frequently in the finger web and wrist areas. Many cases can be diagnosed by scraping lesions which are found in the wrist, finger web and forearm areas. Nodules (small red dots) occur on the hair-covered areas (penis, scrotum, axillae). Scaling, red areas resembling eczema often occur.

The differential diagnosis of scabies will include entities such as eczema, atopic dermatitis, contact dermatitis, stasis dermatitis, viral exanthema and urticaria. Systemic causes of pruritis such as liver and kidney disease must be ruled out.

"Special forms" of scabies may deceive even the experienced clinician.[6] *Scabies incognito* occurs following use of topical corticorsteroids which mask the symptoms and some of the lesions. Infantile and childhood scabies is misdiagnosed due to low index of suspicion and the occurrence of lesions (frequently vesicles) on the palms, soles, head and neck (atypical distribution).

Treatment includes gamma benzene hexachloride (Kwell®), which is highly effective. One application to all skin areas is usually sufficient if it is left on for approximately 24 hours without washing. Reapplication during the treatment period to hands and wrists after hand washing is recommended. For infants less than one year of age, Eurax® (crotamiton) lotion or cream may be used. It is applied to all skin and left on for 24 hours. A second application is then made without washing and left on for 24 hours. All lotions or creams should be massaged into skin fold areas. One point to recall is that repeated applications of the Kwell® lotion will cause a dermatitis; this irritation of the skin often can be as pruritic as the primary disease itself.

Hospital-acquired outbreaks of scabies have occurred,[7] indicating that scabies can be a bothersome nosocomial pathogen. Appropriate infection control procedures for scabies include recognizing the entity so that staff do not become infected, early therapy of infected patients, good hand-washing techniques, and limiting the infected patient's contact with other patients until therapy has been completed.

Tinea Infections

Tinea infections are fungus infections caused in man by three types of dermatophytes: *microsporum*, *trichophyton* and *epidermophyton*. *Candida* species also cause several types of skin problems and are classified as fungi, but in this discussion emphasis will be placed on the "ringworm" infections of various skin sites. Clinically, several forms of tinea infection are recognized

and are described basically in relation to their anatomic location.

1. *Tinea capitis* — Ringworm of the scalp is caused by *microsporum* and *tricophyton* genera; these also may affect non-scalp areas. The fungus invades the hair and causes a variety of clinical manifestations, from spotty areas of broken hair with scaling to severely-painful inflammatory areas with drainage which may resemble a bacterial infection. The latter picture is known as *kerion*. In all forms, hair loss is the cardinal feature of *tinea capitis*.
2. *Tinea cruris* — Ringworm of the groin. The most common causative agents are *E. floccosum*, *T. rubrum* and *T. interdigitale*. In this condition, itching is very severe, and scaling, red areas with a sharp border are observed clinically. Behind this active border is an area of central clearing; it is *not common* to see satellite lesions (vs. candida where satellite lesions are seen), and there usually is no clinical involvement of the scrotum (vs. candida in which scrotal involvement is common). Candida involvement of crural folds shows many red satellite papulopustules without central clearing.
3. *Tinea pedis* — Ringworm of the foot (athlete's foot). *T. rubrum*, *E. floccosum* and *T. interdigitale* again are common causes. Scaling and itching of the soles, heels and sides of feet (moccasin areas) are very common. The toewebs often are involved, and blisters may or may not occur on the bottoms of the feet.
4. *Tinea corporis* — Ringworm of the body may occur in single or multiple areas. Practically all known dermatophytes can produce tinea of the glabrous skin. The distribution of lesions often is on exposed skin, and the lesions are circular. There may be central clearing with a very active papulopustular border.

Effective treatment of fungal infections that are localized can be accomplished with topical antifungal agents such as miconazole and clotrimazole. Occasionally, if several different areas are involved, oral griseofulvin can be used. Secondary bacterial infection may require the use of other antimicrobial agents.

Skin Infections of the Hospitalized Patients

There are several unique cutaneous characteristics of hospitalized patients which should be addressed. Physical factors which are important in these patients involve pressure, heat and friction on the skin of a bedridden patient. This may remove the barrier function (stratum corneum) of the skin, allowing increased transepidermal water loss, easier cutaneous infection, and easier penetration of irritant toxic substances. Also, the hospital environment fosters the overgrowth of pathogenic and opportunistic organisms.

Secondly, illness in a patient will affect the barrier function of the skin in certain conditions. Very young and very old patients, patients with underlying lymphoma or other neoplasm, patients on immunosuppressive drugs, and alcoholic patients, with or without nutritional deficiency, all experience changes in the effectiveness of the protective barrier of the skin and its function.

Decubitus ulcers are a chronic and common problem in the hospitalized and bedridden patient. These can be prevented with adequate anticipation of pressure needs by nursing and other personnel. Early skin changes such as erythema that do not fade indicate compromise of the skin and early breakdown. Superficial infection in these pressure areas can easily lead to a decubitus ulceration.

Therapy for decubitus ulcers should be aimed at relieving pressure with sheepskin, floatation mattress, treatment of infection as indicated, and avoidance of irritation of the skin if possible. The latter irritation may occur with the overzealous use of cleansers, soaps and antiseptics in the treatment of such ulcerations. Frequently, these solutions impede the fragile process of skin re-epithelialization and granulation.

Often, simple soaking with a Burows solution soak or other mild cleansing soak will decrease bacterial counts superficially and aid in the healing process. Aggressive surgical debridgement is important when it is indicated. Decubitus ulcers seem to respond to attention and tender loving care.

Staphylococcal infection: Localized staphylococcal processes include impetigo, echthyma, folliculitis, furunculosis and carbuncles ("small fiery coal"). Carbuncles and echthyma are deep skin infections resulting in ulcerations and deep pyodermas. These can be associated with systemic infection and are best treated with drainage and both topical and systemic antibiotics.

Systemic staphylococcal infection of the scalded-skin type (toxic epidermal necrolysis) occurs in infants and young children. The pathogenesis of this entity is related to circulat-

ing staphylococcal exotoxin (epidermolytic toxin) which follows a cutaneous staph infection. Sheets of desquamative epidermis are present on most areas of the body, and the skin appears burned.

Staphylococcal bacteremia can occur from a portal of entry in skin or a mucous membrane. It often is a cause of bacteremia in cancer patients. In a study by Kilton *et al.*,[8] 26 of 57 bacteremias in such patients were due to *Staphylococcus aureus*. In 24 cases of bacteremia, 23 with staphylococcal bacteremia, the *skin* was the apparent entry site.

Eczema Dermatitis

These two terms generally are used synonymously, and some of the more common types include:

Contact dermatitis (poison ivy)

Stasis dermatitis (venous insufficiency)

Seborrheic dermatitis

Atopic dermatitis

Patients with chronic (or acute) eczema lose the protective barrier of the skin and are more susceptible to secondary infection. This is especially pronouced in *stasis eczema*, where the cutaneous blood supply in the lower legs is poor and secondary infection is common. Patients with atopic dermatitis frequently are colonized with *Staphylococcus aureus*, and this impedes healing of their lesions. Colonized body sites include nasal, pudendal and axillary areas. These patients also are more likely to develop *herpes simplex* in areas of eczema (eczema herpeticum).

Herpes Virus Infections

Herpes virus infections involve herpes simplex virus, types I and II. The primary infection with type I which is seen most often in childhood is usually a mild infection. Infection with type II is thought to be more common in the genital areas, although in recent surveys types I and II are seen interchangeably above and below the waist line.[9]

Clinically, primary infection with herpes simplex virus demonstrates the labial and gingival areas to have localized or diffuse swelling with the presence of papulovesicles. The entire oropharynx can be involved (herpetic gingivostomatitis), and systemic symptoms such as malaise, fever, arthralgias and headache may occur if primary infection is severe. The *progenitalis* form has recurring grouped vesicles on the penile shaft and/or foreskin and the vaginal labial areas. Associated with swelling and pain, these lesions often are preceded by a history of intercourse and, in some cases, will recur at monthly or weekly intervals. The *herpetic whitlow* is a grouped papulovesicular herpetic process occurring on the finger; the virus is inoculated into this area when medical/nursing personnel contact the virus (usually in oral secretions). *Eczema herpeticum* has been mentioned previously to occur in areas of eczema.

The treatment of herpes simplex infection has been disappointing to date. I currently recommend Burows solution soaks two to three times per day followed by zinc talc lotion in areas that are acute and vesicular. Zinc oxide ointment, which is over-the-counter, may be used for healing. There has been some interest in the adenine arabinoside ointment that primarily is for ophthalmic use; however, it has not been shown conclusively to be effective on skin and non-mucous membrane herpes infections. Other topical therapies such as ether and chloroform have not been shown to be effective for herpes labialis.

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Infection Control Series: II. Total Parenteral Nutrition And Infection

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SINCE Dudrick and colleagues[1,2] at the University of Pennsylvania first introduced the techniques of administering parenteral nutrition in the late 1960s, total parenteral nutrition (TPN) has become a valuable support modality to maintain adequate nutrition. In the short span of 15 years, TPN has become an increasingly popular modality for reversing the catabolic state of severely ill patients.

In order to provide total parenteral nutritional support, solutions of dextrose and either protein hydrolysates or synthetic amino acids are given through an indwelling catheter that has been inserted into the superior vena cava by the internal jugular or subclavian route.

The efficacy of TPN is now well established. Indeed, it can be life-saving for the patient in severe negative nitrogen balance. It is, however, a potentially dangerous technique, especially in the hands of those who use it improperly. Widespread use of TPN has been accompanied by complications; these can be divided into three broad categories: technical, metabolic and infectious.[3,4,5] Sepsis is the most frequently noted complication of TPN.[6]

This report focuses upon the increased susceptibility of TPN patients to infection, the frequency and types of infection associated with TPN, and the infection control measures that should be employed as part of a TPN program.

The Effect of Malnutrition on Susceptibility to Infection

The detrimental effect of poor nutrition on operative morbidity and mortality rates is not a new discovery. As early as 1936, Studley[7] demonstrated the correlation between preoperative weight loss and surgical mortality. Preoperative weight loss of 20 per cent was associated with a 33-per cent mortality rate among patients having surgery for peptic ulcer disease. Those with better nutritional status had a mortality rate of only 3.5 per cent. In 1944, Cannon *et al.*[8] again noted the adverse effect of protein-calorie malnutrition upon surgical outcome. In addition, they described an associated impairment of antibody formation. Later, Guggenheim and Buechler[9] observed deficient phagocytic and bactericidal properties of peritoneal fluid from malnourished animals.

More recent studies have shown that protein-calorie malnutrition results in measurable impairment of both cellular and humoral defense systems, including lymphocyte and neutrophil function, antibody formation and the complement system. Neutrophils from patients with kwashiorkor show a decrease both in phagocytic capacity and intracellular killing of bacteria.[10] Peripheral blood lymphocytes from patients with malnutrition respond poorly to phytomitogens *in vitro*.[11] Hypogammaglobulinemia and decreased antibody production result from protein-calorie malnutrition. All of the classic complement components are reduced in the presence of malnutrition.[12]

The elucidation of specific cellular and humoral deficits which result from malnutrition has aided our understanding of the increased susceptibility to infection of these patients. More important, however, is the observation that restoration of immunological competence can result from nutritional repletion. The reversibility of the impaired competence that accompanies malnutrition has been demonstrated both in laboratory[13] and clinical studies.[14] Immune competence after nutritional repletion can be assessed by lymphocyte count and skin testing with a variety of recall antigens.

Incidence of TPN-Related Sepsis

The earliest clinical experience with TPN indicated that sepsis was a potential problem.[15] A six-per cent incidence of septicemia occurred, primarily due to Candida species. This low incidence was achieved using a very meticulous protocol for administration of TPN.[16] With more widespread use of TPN, the incidence of sepsis has ranged from four per cent to 27 per cent.

In 1971, a report from the University of Minnesota demonstrated the scope of the problem of TPN-related sepsis when no infection control guidelines existed.[6] In a prospective study of 49 patients receiving TPN, septicemia developed in 27 per cent. The majority of blood stream infections were fungal in nature. In reviewing this experience, it is noteworthy that no guidelines for the delivery of TPN existed at that institution. Solutions were prepared on nursing

stations, albumin and blood products often were administered through the same catheter as the dextrose-protein hydrolysate solution, and frequently that same catheter was used to monitor central venous pressure.

The incidence of TPN-related sepsis has decreased as the use of TPN has increased. The experience at San Francisco General Hospital reported by Sanders and Sheldon[17] seems typical of that observed in most institutions. In 1970, only 21 patients received total nutritional support at that hospial, with an incidence of septic complications of 28.6 per cent. By 1975, TPN was administered to over 200 patients annually with a rate of sepsis of only 4.7 per cent. This dramatic improvement was due largely to the creation of a nutrition consultative service which used rigid protocols for the preparation and delivery of TPN solutions. Similarly, at the Massachusetts General Hospital, where TPN guidelines were followed, the frequency of sepsis was only three per cent.[8] The rate of sepsis soared to 20 per cent at that hospital when those guidelines were not employed.

In order to better define the risk of TPN-related sepsis, the Center for Disease Control surveyed 31 institutions where correct infection control practices were used for the administration of TPN. The survey revealed that 2,078 patients received TPN with a seven-per cent incidence of infectious complications.[19] More than half of the septic problems were due to fungal infections. With strict adherence to proper technique, the problem of TPN-related sepsis can be minimized, although probably never completely eliminated.

Sources of Infection — the Solution

TPN fluid is a 25-per cent solution of dextrose to which a source of nitrogen (either protein hydrolysates or synthetic amino acids) has been added. Electrolytes, trace minerals and vitamins also are included. This nutrient solution provides an excellent medium for both bacterial and fungal growth. The recent use of synthetic amino acids, in contrast to the hydrolysates, represents an advance because the former are less likely to support bacterial growth.[17]

Recent epidemics of nosocomial sepsis have demonstrated that infusion solutions may become contaminated during manufacture. The most noteworthy outbreak of infusion-related sepsis in this country began in 1970 shortly after Abbott Laboratories, which held a large share of the market for infusion apparatus, introduced a new elastomer-lined, screw-cap closure. Many American hospitals experienced outbreaks of infusion-related sepsis due to *Enterobacter agglomerans* and *Enterobacter cloacae*.[20] Epidemiologic studies implicated microbial contamination of these new closures.[21] The prevention of microbial introduction during manufacture of infusion solutions is a challenge for both industry and regulatory agencies. Present USP regulations require sampling and microbiologic testing at the end of production as well as at intermediate stages. In 1970, testing of the final product was not done.[22]

After manufacture, there are many points of potential contamination of the infusion solution before it is delivered to the patient. Several years ago, most intravenous solutions were delivered in glass bottles. Hairline cracks[23] and the influx of unfiltered air[24] were shown to be sources of microbial contamination. The recent switch to plastic bags for intravenous solutions has not changed the rate of contamination.[25] Accidental puncture of the plastic container can provide a point of entry for microorganisms.[26]

Virtually every point at which the system is handled represents a potential portal of entry. Presently, TPN solutions are prepared in most hospitals by a centralized pharmacy service. Strict aseptic technique, which is mandatory for the preparation of these solutions, probably is more successful in a pharmacy than on a busy hospital floor where nurses have many other tasks. Furthermore, in the pharmacy, solutions can be prepared in a laminar flow hood to reduce the likelihood of airborne contamination.[27] Once prepared, solutions should be refrigerated at less than 4° C until used to inhibit growth of organisms. Addition of medications to the bag or bottle, injections into the tubing, administration of blood products, use of stopcocks, manometers or other devices in the delivery system, changes of bottles and IV tubing, and the drawing of blood samples through the tubing represent methods by which a previously sterile container of TPN solution can become contaminated.

The likelihood of contamination of TPN fluid increases with the duration of uninterrupted infusion.[28] Once introduced, microorganisms can persist in the administration set for several days, despite high rates of flow.[29] Therefore, all the tubing and the administration set as well as the solution container must be changed at least daily.

Most TPN programs employ membrane filters to diminish the risk of sepsis from contaminated solutions. These filters are placed terminally, between the IV tubing and the intravenous catheter. A 0.45-micron filter will block the passage of fungi and most bacteria. A 0.22-micron filter will block virtually all bacteria. The

latter does require a pump to ensure the correct rate of flow of the slightly viscid TPN mixture. Infusion pumps are now widely used to regulate and maintain a constant rate of flow, so this does not represent a serious drawback. Filters have no effect on contaminants that gain access to the system at a point distal to the filter. Furthermore, manual insertion of any device into the system increases the risk of contamination. This was demonstrated by Miller and Grogan[30] who found that employing multiple filters in series actually increased the risk of sepsis, compared to the use of a single filter.

Over the last five years lipid emulsions have been used to supply some of the caloric requirements of the TPN patient. A 10-per cent soybean emulsion currently is used, and more concentrated emulsions are under investigation. Lipid emulsions can support the growth of E. coli, S. aureus, and C. albicans.[31] Their advantage, from the standpoint of infection, appears to be that lipid emulsions can be administered via steel needles in a peripheral vein.

Sources of Infection — the Catheter

Most instances of TPN-related sepsis are attributed to the use of an indwelling plastic catheter. This was shown aptly by Ryan *et al.*,[18] who summarized the experience of the Massachusetts General Hospital. They found a seven-per cent incidence of TPN-related infections, all due to catheter sepsis. No septic episodes were attributable to infection of the TPN solution.

The plastic catheter was hailed at its introduction in 1945[32] as a major advance in the delivery of intravenous fluids. Shortly thereafter followed reports of septic problems due to these catheters.[33] Studies were done in which the catheter tips were clipped off and cultured at the time of removal. Rates of positive catheter cultures ranged from 3.8 per cent to 57 per cent. The associated incidence of sepsis varied from zero to eight per cent.[34]

Skin flora are an important source of organisms cultured from in-use catheters. The most common isolates from catheters tips are S. epidermidis, S. aureus, Klebsiella, Enterobacter and Serratia, all of which are ubiquitous on the skin of hospitalized patients. Intravenous catheters can become contaminated at the time of insertion or dressing change unless strict aseptic technique is employed. Catheters must be firmly anchored to the skin to prevent the to-and-fro motion that facilitates entry of skin contaminants into the catheter wound. In order to reduce the level of skin contaminants, topical antimicrobial agents are applied to the catheter entry site. A triple antibiotic ointment containing bacitracin, neomycin and polymyxin does reduce the frequency of positive cultures when applied to cut-down catheters.[36] It has not been studied in percutaneously-inserted catheters. The benefits of an antibiotic ointment must be balanced against the tendency to alter the microbial flora. For example, a triple antibiotic ointment reduces the incidence of staphylococcal species, but may produce colonization with Candida.[37] Most TPN services now use an ointment of providone-iodine because it has both anti-bacterial and anti-fungal activity.[34]

An intravenous catheter can become seeded by pathogenic organisms during an episode of bacteremia caused by infection at a distant site. Thus, bacteria from abdominal abscesses, urinary tract or surgical wounds may become established on the catheter tip. This may occur without clinically-recognized bacteremia.[38] Catheters inserted into patients with established infections become culture-positive, causing more episodes of sepsis than those placed in non-infected individuals.[39] The loosely organized thrombus or fibrin sleeve that forms around the intravenous segment of the plastic cannula may serve as a trap for circulating microorganisms.[40]

In a study of 122 patients receiving TPN, Dillon *et al.*[41] showed that catheter sepsis was an infrequent cause of fever. More often the patient was found to have a distant site infection producing positive blood cultures with negative catheter cultures. The term "catheter sepsis" should be reserved for an episode of clinical sepsis in a patient receiving TPN for which no anatomic septic locus can be identified.[18] Furthermore, it should resolve with removal of the catheter. Because infection is associated with insulin resistance, unexplained glycosuria and hyperglycemia may be the initial harbingers of a septic episode. These may be present for 24-28 hours before the development of chills and fever, the usual signs of sepsis. Impaired glucose metabolism in a patient who had previously tolerated the glucose load of TPN suggests impending sepsis.

The length of time an indwelling central venous catheter is in place for delivery of TPN does not correlate with the incidence of sepsis. Sanders and Sheldon[17] showed that catheters causing sepsis were in place no longer than nonseptic catheters. In the study by Ryan *et al.*,[18] the frequency of catheter sepsis was no different for catheters in place more than 30 days compared with the rest of the catheters in the series. Although the length of time a particular catheter is in place does not correlate with the risk of

sepsis, the length of time the patient receives TPN is an important variable.[17] The latter reflects the nature and duration of the patient's illness.

If catheter sepsis is suspected, other sources of infection must be excluded by physical examination and appropriate tests and cultures. If a distant site of infection is not found, the central venous catheter must be removed. The catheter of any TPN patient in septic shock must be immediately removed because time does not permit a lengthy work-up. The following cultures must be obtained: (1) blood cultures, (2) catheter insertion site, (3) catheter tip (semiquantitative[42]), (4) sample of the filtered fluid, and (5) sample of the fluid in the bag or bottle. If the diagnosis of catheter sepsis is correct, it should resolve with catheter removal, but it may take up to 48 hours for complete defervescence. If there is infection at a distant site that has seeded the catheter or which the catheter has seeded (especially with *Candida albicans*), the spiking temperature curve will persist. When a distant site of infection is found (urinary tract infection, wound or abdominal abscess, pneumonia), it is appropriate to continue TPN through the existing catheter. Failure to find another focus of infection should result in catheter replacement. Recurrent positive blood cultures mandate the removal of the catheter.

Bacteriology of TPN-Related Sepsis

Staphylococcus aureus and *Staphylococcus epidermidis* are the organisms most often recovered from tips of all types of intravenous catheters with confirmed catheter sepsis.[18] Both of these organisms have proved to be the causative organisms in the majority (30 per cent and 20 per cent respectively) of cases of TPN catheter sepsis.[6,17,41,43] Less frequently reported as the responsible microorganisms are Bacteroides, Klebsiella, Enterococcus, Enterobacter and Pseudomonas.[17,18,41]

Most investigators have noted a special association between TPN and fungal septicemia. In a recent survey by the Center for Disease Control, 54 per cent of the episodes of TPN-related sepsis were attributed to fungi.[44] In contrast to the relatively high incidence of fungal sepsis among TPN patients, fungal infection is quite rare among patients receiving conventional intravenous infusions.[45] *Candida albicans* is the most frequently encountered species. Also reported are episodes of sepsis due to *Torulopsis glabrata* (non *Candida glabrata*) and *Candida parapsilosis*.

Several factors predispose to the development of fungal septicemia. Patients receiving TPN are debilitated and chronically ill. Fungal infections occur more frequently among such patients with impaired immunologic competence.[46] These individuals may be receiving broad-spectrum antibiotics, steroids or immunosuppressive drugs, all of which further predispose to the overgrowth of fungal species.[47,48] Topically-applied antibiotic ointments, if used, may promote colonization by opportunistic organisms such as Candida. The occlusive dressings used to dress the catheter site provide a moist environment favorable to the growth of fungi. Also, yeasts such as Candida grow well in TPN fluid. *Candida albicans* will grow exuberantly in TPN fluid, in contrast to Klebsiella, Enterobacter and Pseudomonas which grow more slowly.[49] Fortunately, refrigeration at 4°C inhibits growth of Candida in TPN fluid for up to a month.

Candida septicemia may result in fulminant endocarditis that requires valve replacement.[50] In addition, visual loss due to Candida endophthalmitis has been described.[51] Other investigators have noted the rather frequent occurrence of Candida retinal lesions in patients receiving TPN.[52]

In summary, septicemia complicating the administration of total parenteral nutrition is a major threat to life. Patients who receive TPN already are seriously ill, as indicated by the mortality rate of 27 per cent for non-septic patients reported by Dillon *et al.*[41] This already significant mortality rate increased to 40 per cent when there was an episode of catheter-related sepsis.

Recommendations for infection control measures when using TPN:

1. TPN must be used only when clinically indicated. Benefits and risks must be weighed.

2. TPN must be supervised by a physician who is well versed in the techniques and complications of this therapeutic modality.

3. TPN should be the responsibility of a team of individuals: physician, nurse and pharmacist. This team is charged with teaching the principles of infection control to other physicians and nurses caring for TPN systems.

4. TPN solutions should be prepared, catheters placed, delivery systems maintained, and fluid administered according to a detailed protocol.

5. TPN fluids and all additives should be mixed by a trained pharmacist using a laminar flow hood.

6. The insertion of a TPN catheter is a surgical procedure. It should be performed in the

operating room or clean treatment room. Strict use of handwashing, gowns, masks and gloves is recommended.

7. The catheter insertion site should be prepped as if for a surgical procedure.

8. Once inserted, the catheter must be securely anchored.

9. It should be covered with a topical iodophor ointment, and a sterile, occlusive dressing should be employed.

10. With aseptic technique (gown, mask, gloves), the catheter site should be regularly inspected, cleaned and re-dressed.

11. Only TPN solution should be administered through the TPN catheter; the TPN system must not be used to measure central venous pressure, administer blood products or medications, or draw blood samples.

12. Bottles and *all tubing* must be changed at least daily, preferably every 12 hours.

13. A micropore filter should be placed terminally: between catheter and tubing.

14. Containers of TPN fluid must be closely inspected for defects before use. Containers should not be used if the fluid is turbid or contains any precipitates.

15. The TPN catheter must be removed if there is inflammation, purulence, thrombosis or extravasation of TPN solution at the catheter insertion site.

16. In the event of fever, if no other cause of infection is found, the catheter must be implicated and removed, obtaining appropriate specimens and cultures.

17. Recurrent positive blood cultures or septic shock mandate immediate removal of the catheter.

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Solitary Adult Eosinophilic Granuloma Of Bone: Report Of Four Cases And Review Of Literature

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Four cases of adult solitary eosinophilic granuloma are reported with a review of the clinical, radiographic and pathological features of this entity.

EOSINOPHILIC granuloma of bone is a well-known clinical entity in early life with a peak incidence between 5 and 10 years of age,[1] and 75 per cent of cases occurring in the first two decades. Occurrence in adults has been described as late as the sixth decade.[2-6] When this entity occurs in adults it is not commonly considered in the differential diagnosis due to its rarity[4] (1:> 2,000,000 per year) and its occurrence as a solitary bone lesion. We report four cases of solitary eosinophilic granuloma in adults along with a review of the literature.

Case Report One

A 25-year-old, white male presented with a complaint of left hip and leg pain of two months' duration. There were no other systemic complaints. Physical examination revealed a healthy male with only point tenderness in the lower left buttock region. Laboratory studies, including blood chemistry, erythrocyte sedimentation rate and complete blood count, were normal.

Radiographs of the pelvis revealed an ill-defined lytic lesion of the left ilium (Figure 1). Subsequent radiographic skeletal survey revealed no other lesions. Bone scan demonstrated abnormal accumulation of activity in the left ilium (Figure 2) which is frequently found in bone lesions of histiocytosis X.[7] Tomography of the iliac lesion demonstrated it to be lytic with a mottled pattern and minimal sclerosis along the lateral border of the lesion (Figure 3). The lesion was biopsied with a Jamshidi needle under fluoroscopic control.

Pathologic examination revealed foci of proliferating histiocytic cells interspersed with variable numbers of eosinophils (Figure 4) consistent with eosinophilic granuloma of bone.

Local therapy with 1,500 rads was administered to the lesion.

Case Report Two

A 20-year-old male presented with occasional dull pain in the right hip of four months' dura-

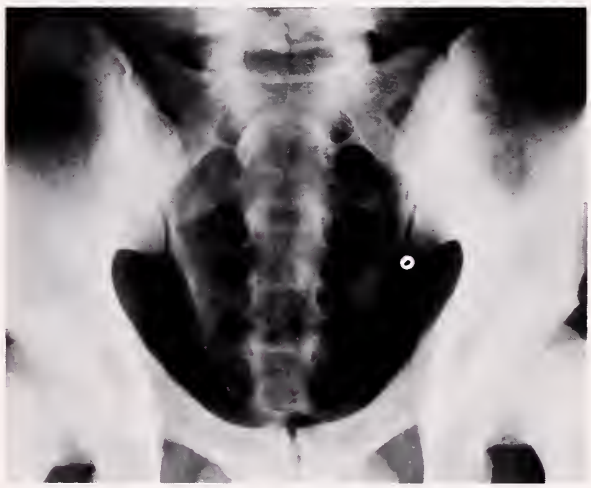

Figure 1. AP pelvis demonstrating a small, lytic lesion with ill-defined borders in left ilium.

Figure 2. Bone scan with diffuse, increased activity, left ilium.

tion. There were no other systemic complaints. Physical examination revealed only localized tenderness in the upper lateral aspect of the right hip about three inches below the level of the greater trochanter. Laboratory studies, including complete blood count, erythrocyte sedimentation rate, uric acid and urine analysis, were normal.

Figure 3. Tomogram showing lesion with ill-defined sclerotic border.

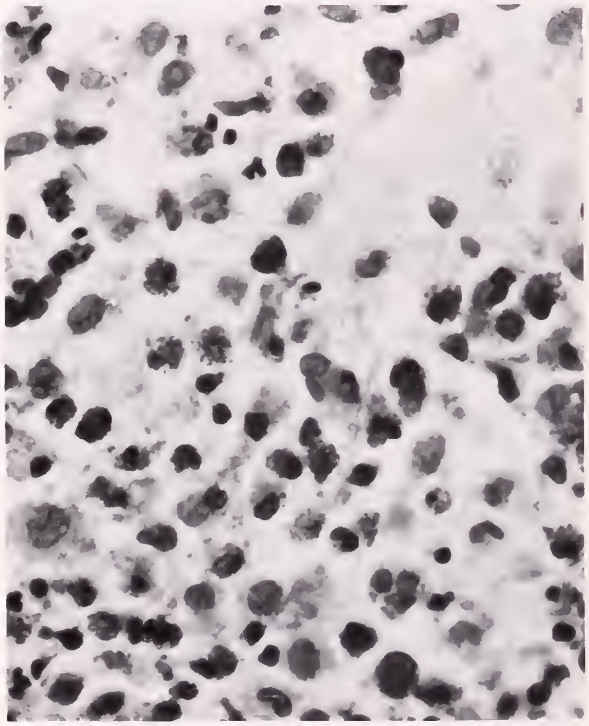

Figure 4. Section of the biopsy specimen of Case One showing moderately large histiocytes intermixed with eosinophils, neutrophils and lymphocytes.

A radiograph of the right hip revealed a lytic lesion measuring 2.5 x 1.0 cm. in the upper shaft of the right femur with slight endosteal erosion of the cortex (Figure 5). There was slight marginal sclerosis, particularly along the lateral aspect of the lesion: however, the medial border was ill-defined. Tomography added no significant information, and a bone scan showed slight increased nuclide activity in the proximal right femur.

Biopsy was performed with a histopathologic diagnosis of eosinophilic granuloma.

The patient was treated with 1,500 rads to the area of involvement with complete cure.

Case Report Three

A 26-year-old, white male presented with gradual onset of pain in the right posterolateral chest of five weeks' duration. Other complaints included tachycardia, low-grade fever and a history of depression. Laboratory studies, including complete blood count, blood chemistry, T3, T4, ANA, STS, urine analysis, erythrocyte sedimentation rate and bone marrow biopsy, were normal with the exception of a mild leukocytosis in the presence of a normal differential. Physical examination was normal except for localized pain in the lower right posterior chest and a positive P.P.D.

A radiograph of the chest revealed a lytic lesion in the right posterior tenth rib with a pathologic fracture (Figure 6). Bone survey was negative for additional lesions.

The rib was resected and pathologic studies were diagnostic for eosinophilic granuloma of bone. No further therapy for this problem was initiated.

Case Report Four

A 20-year-old, white male complained of recent right shoulder pain associated with pleuritic-type ache over the upper part of the right side of the chest. This came on after he had been tugging on the starter cord of a power lawn mower. Pain over the right shoulder gradually increased to the point that he was unable to move his right upper extremity.

The chest x-ray revealed a lytic lesion in the lateral aspect of the right third rib. Tomographic views show a pathological fracture (Figures 7 and 8) with destruction of a three-cm. segment of the third rib.

The patient denied having weight loss, cough, hemoptysis or any other illness. Family history and social history were unremarkable. The physical examination revealed localized tenderness over the right third rib. The laboratory findings were normal.

Figure 5. Right femur with lytic lesion with ill-defined medial border and lateral sclerosis.

Figure 6. Right ribs showing lytic, expansile lesion with sclerotic borders in tenth rib.

During thoracotomy the tumor was localized to the lateral aspect of the right third rib. The tumor mass showed infiltration into the adjacent intercostal muscles and parietal pleura. Therefore, En Block resection was carried out. The histopathological diagnosis was eosinophilic granuloma of the right third rib. The postoperative course was uneventful.

Discussion

The virtue of the term histiocytosis X is that it provides a unifying concept for three diseases: eosinophilic granuloma, Hand-Schüller-Christian Disease, and Letterer-Siwe Disease, which, although described as separate entities, share the feature of histiocytic infiltration.[8,9] This unifying concept, however, lacks universal acceptance, and recently has undergone reappraisal by several authors.[10,11] Letterer-Siwe Disease is considered a malignant histiocytic proliferation affecting primarily infants and young children, characterized by extensive organ infiltration and a rapidly fatal course.

Eosinophilic granuloma is considered by most authors a benign disease of bone which tends to remain stationary, and characterized histopathologically by mature histiocytes accompanied by a varying proportion of eosinophils.

Hand-Schüller-Christian Disease, although basically described as a triad of diabetes insipidus and lytic lesions of bones and exophthalmos, now refers to histiocytic granulomas of other organs as well as bones. Lieberman *et al.*[11] and Zinkham[13] rejected the idea that cases with extra-osseous involvement should be termed Hand-Schüller-Christian Disease, and proposed instead that the basic disease was eosinophilic granuloma with unifocal or multifocal presentation.

Fifty of their cases had unifocal presentation, and 24 had the multifocal variety. None of the patients died. The remaining eight patients died. Their diseases were considered as separate entities, namely, widespread neoplastic histiocyte infiltration in seven cases, and an infection of atypical mycobacteria in one.

Schajowicz and Shillitel,[12] in 1973, published 106 cases of eosinophilic granuloma of bone, 72 per cent and eight per cent of which were classified as solitary and multiple varieties, respectively; 14 per cent as Hand-Schüller-

Figure 7 (also Figure 8). A pathological fracture through a three-cm. lytic lesion in the lateral aspect of the right third rib.

Figure 8 (also Figure 7). A pathological fracture through a three-cm. lytic lesion in the lateral aspect of the right third rib.

Christian Disease; two per cent as Litterer-Siwe Disease, and four per cent as intermediate or transitional cases. Only 27.7 per cent of the unifocal and multifocal types occurred in patients over 20 years of age. In Lieberman's series,[11] 16 cases of unifocal and one case of multifocal eosinophilic granuloma, or 20.7 per cent, occurred in patients over age 21.

Prager,[2] in a report of seven cases in patients over 30, documented one case with hip involvement. Two age-incidence peaks in the adult unifocal eosinophilic granuloma of bone are between 25 to 35 and 45 to 55.[2-6] Sites of involvement in decreasing frequency are skull, pelvis, vertebral bodies, ribs, femur and humerus.

Clinical presentation generally is localized pain and tenderness with rare laboratory findings of leukocytosis, slight eosinophilia and a moderately-elevated erythrocyte sedimentation rate. Prognosis is distinctly favorable using curettage or radiation.[8,12]

The radiographic characteristics are well demonstrated by our case presentations. Unfortunately, other radiographic considerations would include plasmocytoma, metastatic deposit, Ewing's sarcoma and osteomyelitis, with eosinophilia granuloma low on the differential list. Needle biopsy or open biopsy and curettage can establish the diagnosis with curettage and radiation being the best available modes of therapy.

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Ohio State University
College of Medicine
Columbus, Ohio

For further information, write to Hong I. Seung, M. D., Wheeling Hospital, Medical Park, Wheeling, West Virginia 26003

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May 28, 1981

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Registration fee is $25.00. Please make checks payable to Wheeling Hospital and mail with this form to: George M. Kellas, M. D., Director, Wheeling Hospital, Continuing Medical Education, Medical Park, Wheeling, West Virginia 26003

A message from . . .

The President

ETHICS

ETHICS: The discipline dealing with what is good and bad; or right and wrong, or with moral duty and obligation. A group of moral principles or set of values.

The above two definitions represent Webster's interpretation. We, in Medicine, have used various concepts through the years. The Hippocratic oath was the one I pledged upon graduation. Since 2500 B.C. when the Code of Hammurabi was instituted, there have been various changes. In 1980, the American Medical Association adopted new Principles of Medical Ethics altered by litigation, social pressure and some economics. The seven principles adopted appear on Page 98 of this issue of *The Journal*.

Various revisions of our ethical codes may represent "modernization of language" or create statutes which avoid litigation, but they all should retain one important factor. This factor is represented by the creed, "Do unto others as you would have them do unto you," or, "Whatsoever house I enter, there will I go for the benefit of the sick."

Both young people entering Medicine and we oldsters should be ever mindful of the concepts of diligent, sympathetic medical management of our patients. The sophisticated equipment, economic forces, keeping up with the Jones'es, egotism of success, and pressures of increased educational demands must all be secondary to that emotional attitude of "caring."

It is in this area that some of our more recent problems of "cult" competition, malpractice escalation and decreased respect have altered the position of the physician in his community.

It is time for us all to remember the actions of one reflect upon the status of all.

L. Walter Fix M.D.

L. Walter Fix, M. D., *President*

The West Virginia Medical Journal

Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

VE PROGRAM, ALIVE AND WELL

Collective efforts of physicians across the nation to moderate the rate of increase in their fees have been most successful over the past several years. Those efforts, tied to the Voluntary Effort, have been recognized and applauded outside the profession. But in the view of the VE leadership, this work must be continued.

In 1978 and 1979, the American Medical Association requested physicians to hold their fee increases to a rate less than the increase in the All-Items Index of the Consumer Price Index. That move was largely successful. In 1979, the rate of increase in the Physicians' Services Index of the CPI was 3.9 percentage points less than the All-Items Index figure for the same period.

For the first six months of 1980, the AMA asked doctors voluntarily to restrain their fee increases to a level that maintained the 1979 relationship between the two indices of the CPI. The Physicians' Services Index for that period was 2.3 percentage points below the All-Items Index.

In establishing a goal for the last half of 1980, a period of major economic change, the AMA returned to the goal that physicians followed in 1978 and 1979. It recommended that the doctors' fee goal be to hold the percentage increase in the Physicians' Service Index below the All-Items of the CPI.

For the July 1-October 31, 1980, period, the two indices were exactly even—each increasing by 7.8 percentage points. Calendar 1981, however, is likely to bring further uncertainties of numerous kinds in the economy.

In spite of that, the AMA has continued to endorse the goals set for 1978, 1979 and the last half of 1980. To be specific about the AMA goal, let's look at the exact language provided by the VE Program, of which the AMA is an integral part:

"The American Medical Association recommends that the physician fee goal for the first six months of 1981 should be to hold the percentage increase in the Physicians' Services Index below that of the All-Items Index of the CPI."

Can this be done, in the face of inflation combined with an anticipated further drop in real economic growth and the continued increase in demand for services?

It won't be easy, and this is another reason why programs and activities of the VE at national, state and local levels should be geared to cost containment and cost effectiveness in *all* sectors of the health care field.

These efforts must be combined with expanded activities by business in health care cost containment and cost-effective programs related to the demand, financing, utilization and provision of health care services. Organized labor and consumer groups also have a significant role to play, as do such others as all health insurance carriers.

At the national level, the VE Program clearly remains alive and well. More local-level attention and concern are needed. Physicians have shown they can meet this kind of challenge. They need, along with others, to continue to show that capacity.

Our Readers Speak

Disaster Averted, Lesson Learned

At 6:45 A. M. Thursday, January 8, 1981, just outside Point Pleasant, West Virginia, four train cars, each loaded with 80,000 gallons of vinyl chloride, derailed. One overturned. The top inlet valve of the overturned tanker car was broken during the accident, and a small vinyl chloride leak occurred. This created a potentially disastrous situation. If the leaking car exploded it could cause a chain reaction, blowing up the remaining three tankers. The following story is what happened as a result of this accident at nearby Pleasant Valley Hospital, a 228-bed, rural facility, and its Nursing Care Unit.

The train derailment and subsequent spill of vinyl chloride created a concern in the Point Pleasant area about evacuation. How would we go? Who would tell us to go and come back? What routes would be avail-

able out of the area? Where would we stay until conditions permitted our return?

Nowhere were these questions more pressing than at the hospital and nursing care unit. At the time of the accident there were 103 patients in the acute-care hospital and 96 residents in the nursing-care unit, an extended-care facility. Seven surgical cases were scheduled, and pre-operative treatments had been administered.

Suddenly, at 8:05 A. M., word was received concerning the nature of the train derailment and the possibility that the hospital would be without water since the city's water wells could have been contaminated. Shortly after this we were notified that residents within a half mile of the accident had been evacuated.

Evacuated!! What imaginations that word can create —panic, havoc, disorder. If there was danger of the train cars rupturing and exploding or releasing deadly gas into the atmosphere, how large a radius would have to be evacuated? The hospital and nursing care unit are located within three miles of the accident site.

Evacuation Plans Necessary

Faced with the probability of a reduced water supply and possible evacuation, plans had to be made quickly. Our Code White disaster plan would help us cope with an influx of patients should we begin receiving injured people from the accident site, but it was of little help in preparing for the possible evacuation of an entire hospital.

Our internal fire and disaster plan would help us move patients, visitors and employees out of the buildings in the event of a hospital emergency; however, it would be of little use in this type of evacuation which would require transportation and housing for all patients.

Immediately, our census sheets were reviewed by nursing personnel. Admitting physicians were contacted by phone to determine which of their patients could be sent home should we have to evacuate. Lists were made of patients' name, sex, age and general medical condition. This was done unit by unit to determine who would need what type of treatment and how they would be able to travel should the need arise.

Our Director of Pharmacy, who also was coordinator of the county rescue squads, called the Area Emergency Services (AEMS) office in Huntington to secure emergency vehicles for transportation. Since all Mason County Emergency Squads were being utilized at the accident scene, squads from adjacent counties had to be contacted. Within an hour's time 27 emergency vehicles stationed within one hour's drive time of the hospital were placed on alert by AEMS.

While this was happening, our Director of Nursing contacted the Mason County Superintendent of Schools to secure buses to transport those patients who did not have to be moved by ambulance. Off-duty nursing personnel were placed on stand-by to help with the transportation of patients.

Transportation, Beds Arranged

Hospitals were contacted in Huntington, Charleston, Ripley and Gallipolis to determine how many and what type of our patients they could accommodate. By 10 A. M. we had transportation and beds for every patient who could not be discharged. Hospital personnel were notified of the possibility of evacuation by their department heads, and each employee knew what part he would play in the procedure.

Medical Records prepared for the transfer of charts and records with each patient who left the hospital. This meant knowing who would go where so that records eventually could be recovered from the other hospitals.

Lists were maintained, patient assignments were made, employee travel arrangements were completed, and we waited for word.

Meanwhile, the early surgical cases were completed. Some surgery was put on stand-by until final word was received from the site as to what was happening. The hospital and nursing care unit continued to function normally, and water conservation measures were initiated.

At the same time all these things were happening, our Emergency Room staff and the crew from Cardio-Respiratory Services began gathering respiratory equipment and information on vinyl chloride inhalation in the event we began to receive victims from the accident.

Communications via radio with the Mason County Sheriff's Department, the county emergency squad and the emergency services director kept the hospital constantly informed about the situation at the accident site.

Evacuation Unlikely

At about 1 P. M. the Point Pleasant Mayor came to the hospital to meet with the Executive Director and tell him we probably would not have to evacuate and that it looked like the city's water supply was safe. Later in the afternoon we received word that the city water definitely would not be turned off.

By evening we felt relieved in that there was no large influx of victims to our emergency room, our water supply still was in working order, and we were pretty sure there would be no evacuation. Since the wreckage had not been cleared and the possibility of further leakage or explosion did exist, the hospital and nursing care unit evacuation plan was not cancelled, but placed on hold.

After the team of railroad company experts made their evaluations during the night and reported they felt further evacuation would not be necessary, hospital officials cancelled their arrangements. This was done the following day, about 30 hours after the initial contacts were made.

The end result was no evacuation, no loss of water, no major influx of emergency-room patients, but a tremendous lesson in evacuation preparation for an entire hospital and nursing-care unit. Cooperation within the hospital and between the hospital and all local and state agencies involved in the derailment was superb. A major disaster was averted.

Sam Neal
Director of Personnel and Public Relations
Pleasant Valley Hospital
Valley Drive
Point Pleasant 25550

Halberstam Editorial Appropriate

It was indeed appropriate that *The Journal* paid tribute to the deceased Doctor Halberstam in its editorial page [January issue]. The editorial was written in Halberstam style and expressed extremely well what we all must feel about the death of our distinguished colleague. His death is a greater loss coming at a time when the quality of prose generally, and medical literature in particular, has reached such a low ebb. We needed Doctor Halberstam's writing as a standard for other authors but also as a demonstration that case histories, clinical data and medical philosophy need not be dry and sterile, but can be a source of keen enjoyment, stimulation, humor and education.

I would like to express my appreciation to the editorial staff of *The Journal* for giving us a *Journal* we can all be proud of. The editorials on government intrusion and interference are hitting hard. The pen is a mighty weapon. Keep hammering away!

David H. Smith, M. D.
The Wheeling Clinic
58 16th Street
Wheeling 26003

GENERAL NEWS

Convention Speaker To Focus On Communication

A West Virginia University speech professor who has been active in management communication will address physicians during the 114th Annual Meeting of the State Medical Association in August.

Leonard M. Davis, Ph.D., of Morgantown will speak during the second and final scientific session Saturday morning, August 22. His topic will be "Why Can't People Get Things Straight?"

Leonard M. Davis, Ph.D.

The convention will be held August 20-22 at the Greenbrier in White Sulphur Springs.

Doctor Davis, a native of Lewis County, has taught courses in communication for the University of California at Berkeley, lectured at the University of California at Los Angeles in the Graduate School of Business Administration, conducted seminars for that University at Vandenberg Air Force Base, and for the California Department of Employment Security.

He has held special courses and seminars in communication for the American Banking Association, the U. S. departments of Agriculture and Defense, glass and coal companies, and various labor groups.

Interested in history, Doctor Davis is Chairman of the West Virginia State Capitol Building Commission, a member of the State Archives and History Commission, and a member of the Advisory Board, West Virginia Independence Hall (Wheeling) Foundation. He also is author of several articles on Abraham Lincoln, and co-authored a play on the assassination and funeral of President Lincoln.

Ph.D. from Northwestern

Doctor Davis received undergraduate and graduate degrees from WVU, and his Ph.D. from Northwestern University in Chicago. At WVU he is Professor of Speech and Professor of Speech Pathology and Audiology in the Department of Speech Communication. In addition to the University of California, he also has taught at the University of Arizona and Pennsylvania State University.

Doctor Davis currently is President of the Monongalia County Unit of the American Cancer Society.

The pre-convention meeting of the State Medical Association's Council and the first session of the House of Delegates, as announced previously, will be held on Thursday (August 20) instead of on Wednesday as has been the case in recent years. This schedule change is the result of action by the House last August to shorten the 1981 Annual Meeting by one day.

Daniel T. Cloud, M. D., who will be installed as President of the American Medical Association in Chicago in June, will address the first House session Thursday afternoon. Doctor Cloud is a pediatric surgeon from Phoenix, Arizona.

The number of general scientific sessions has been reduced from three to two, and will be held on Friday and Saturday mornings with elimination of the previous Thursday morning scientific session.

Doctor Furlow to Speak

Opening convention exercises will precede the Friday morning scientific program.

Dr. William L. Furlow, as announced previously, will speak during the first general scientific session Friday morning. A Mayo Clinic urologist, his topic will be "Impotence with Regards to the Etiology, Diagnosis and Treatment." He also will speak on "Urinary Incontinence with Regards to the Artificial Sphincter" at a meeting of the Association's Section on Urology at 2 P. M. on Friday.

The Friday and Saturday morning scientific sessions also will include papers on the subjects of the handicapped, rehabilitation, bone tumors and malpractice.

Various other scientific sections and societies again will hold breakfast and other scientific meetings on Friday and Saturday, and the House will meet for the second and final time on Saturday afternoon.

The Saturday evening reception for new officers will be held as usual following the second House session. At that session, Doctor John B. Markey of Charleston will be inaugurated as President to succeed Dr. L. Walter Fix of Martinsburg.

Program Committee Members

Members of the 1981 Program Committee are Dr. T. Keith Edwards of Bluefield, Chairman; Doctor Markey; and Drs. Stanley J. Kandzari of Morgantown, Ruth C. Harris of Huntington, Jerome C. Arnette, Jr., of Elkins and Harvey D. Reisenweber of Martinsburg.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. Gary G. (Ruth) Gilbert of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's convention.

More specific information relative to other general session topics and speakers will be provided in upcoming issues of *The Journal*.

Reservation forms provided by the Greenbrier have been mailed to all Association members. Those planning to attend the Annual Meeting are encouraged to give them their earliest possible attention.

Claims Office Moved

The Metropolitan Life Insurance Company has moved the Group Health Claims Office processing all medical claims for services to eligible coal miner beneficiaries of Bethlehem Mines and the Beth-Elkhorn Division of Bethlehem Steel.

The office has been moved from Pittsburgh to the Mideastern Head Office in Johnstown, Pennsylvania.

Effective immediately, such medical claims should be mailed directly to the following new address: Metropolitan Life Insurance Company, Group Health Claims Office, Mideastern Head Office, 502 Schoolhouse Road, Johnstown, Pennsylvania 15904.

Bethlehem mines are located in or adjacent to the following counties: Kanawha, Boone, Fayette, Raleigh, Barbour, Upshur, Marion and Clay.

Principles of Medical Ethics

For those physicians who, for one reason or another, missed action taken by the American Medical Association's House of Delegates in Chicago last July, *The Journal* is publishing the AMA's current Principles of Medical Ethics:

"*Preamble*—The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.

"I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity;

"II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception;

"III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient;

"IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law;

"V. A physician shall continue to study, apply and advance scientific knowledge; make relevant information available to patients, colleagues and the public; obtain consultation, and use the talents of other health profesionals when indicated.

"VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services; and

"VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community."

200th Birthday

Four men who have won distinction in medicine and science will be among participants in a Medical/Science Colloquium at Washington and Jefferson College on Wednesday, May 6. A feature of the College's year-long observance of its 200th birthday, the panel will be devoted to discussions of "Frontiers of Medicine" and "Frontiers of Science."

WVU Teaching Students Cost Containment

(*Editor's Note*: See also the editorial. "VE Program, Alive and Well," in this issue of *The Journal.*)

The West Virginia University School of Medicine is making efforts to prepare students to treat their future patients with cost-containment in mind, it was reported in a recent article in the Morgantown Dominion-Post.

WVU Medical School Dean John E. Jones, M. D., according to the article, said that some physicians trained in the past may not practice medicine economically, but that this does not apply to recent graduates of medical schools. "Here, there are distinct efforts made to teach cost containment," Doctor Jones said.

The article had noted recent reports of unsuccessful attempts to hold down medical costs and hospitalization occupancy rates by an independent practice association (IPA) of doctors in Wheeling, The Health Plan of the Upper Ohio Valley. The observations in Wheeling were contained in a letter to the IPA members from Andrew J. Barger, M. D., President of the IPA, who also declared that "nobody is really trained in practicing medicine economically."

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Basic Histology, 3rd Edition, by Luis C. Junqueira, M. D.; and Jose Carneiro, M. D. 504 pages. Price $15.50. Lange Medical Publications, Los Altos, California 94022. 1980.

Current Medical Diagnosis & Treatment 1981, edited by Marcus A. Krupp, M. D.; and Milton J. Chatton, M. D. 1100 pages. Price $21. Lange Medical Publications, Los Altos, California 94022.

Current Obstetric and Gynecologic Diagnosis and Treatment, 3rd Edition, by Ralph C. Benson, M. D. 1001 pages. Price $21. Lange Medical Publications, Los Altos, California 94022. 1980.

Morgantown Doctor Praised For Rescue Efforts

The Monongalia County Medical Society recently adopted a resolution praising the efforts of a Morgantown physician who helped rescue persons caught in the MGM Hotel fire in Las Vegas that killed 86 persons.

Dr. Phillip B. Mathias was honored by his Morgantown peers, who stressed that few persons are granted the opportunity to demonstrate bravery, devotion and concern for their fellow man as had Doctor Mathias.

Phillip B. Mathias, M. D.

Doctor Mathias was a guest in the hotel where he had just finished attending a four-day session of the American Association for Clinical Immunology and Allergy. His room was on the fifth floor near the proximity of the casino and kitchen where the fire originated.

He had arisen early, intending to depart Las Vegas on a morning flight when he became aware of the fire shortly after 7 A. M. He quickly went to all the rooms in the immediate vicinity, knocking on doors, spreading the alarm to sleeping guests, and leading them to safety.

Here is the resolution, which was proposed to the County Medical Society membership by Dr. Phillip M. Sprinkle.

"Resolved, 1. That Phillip B. Mathias, M. D., be commended and recognized by the Monongalia County Medical Society for his exemplary and courageous acts without regard for his own personal welfare and safety, and that this resolution be made a part of the formal, permanent records of the Monongalia County Medical Society and that copies be forwarded to the West Virginia Academy of Ophthalmology and Otolaryngology, the West Virginia State Medical Association and the American Medical Association for appropriate further recognition."

Doctor Mathias has been associated with the Morgantown ENT Clinic since he completed his medical education at West Virginia University Medical Center in 1971.

He is a native of Mathias in Hardy County.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal).

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

April 3-4, Morgantown, Cancer Teaching Days

April 24, Morgantown, ENT Teaching Day

May 1-2, Morgantown, Orthopedic Reunion Days

May 8-9, Morgantown, WV Radiological Society

May 9, Charleston, Surgical Use of Blood and Blood Components

May 21-22, Morgantown, Health Officers Seminar

June 5-6, Morgantown, Anesthesia Update '81

June 6, Charleston, 8th Wildwater Surgical Conference

June 11-13, Morgantown, Chondromalacia Symposium

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, Upshur-Buckhannon Middle School, 3rd Thursday, 7-9 P. M. — April 16, WVU Professional Day. Two concurrent sessions: "Management of Arthritis," Michael E. Crouch, M. D.; and "TMJ: Myofacial Pain Dysfunction Syndrome," Henry J. Bianco, D.D.S.

May 21, "Special Problems of the Elderly" (A special mental health training program. Speakers to be announced.)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M.—April 8, "Venereal Diseases," Patrick Robinson, M. D.

May 13, "Peptic Ulcer Disease: Diagnosis, Treatment and Complications," William McMillan, Jr., M. D.

June 10, "Dealing with Emotional Problems in the Clinical Setting" (A special mental health training program. Speakers to be announced.)

Oak Hill, Oak Hill High School (Oyler Exit, N 19), 4th Tuesday, 7-9 P. M. — April 28, WVU Professional Day. Four concurrent sessions: "Rational Use of Antibiotics: Why We Should Care," Robert H. Waldman, M. D.; "Fixed Prosthodontics," Robert J. Connor, Jr., D. D. S.; "Lab Values for Pharmacists and Clinical Pharmacy's Role in Institution," Charles D. Ponti, Pharm. D.; and (topic and speaker to be announced.)

May 26, "Dealing with Death and Dying" (A special mental health training program. Speakers to be announced.)

Welch, Stevens Clinic Hospital, 3rd Wednesday, 11 A. M.-1 P. M. — April 15, "Chronic Pain Unresponsive to Conventional Therapy," John F. Zeedick, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — April 22, "Black Lung in the Small Clinic," Dominic Gaziano, M. D.

Williamson, Appalachian Power Company Auditorium, 1st Thursday, 6-8 P. M. — April 2, WVU Professional Day. Four concurrent sessions: "Inflammatory Bowel Disease," James W. Manier, M. D.; "Oral Manifestation of Systemic Diseases," Jerry E. Bouquot, D. D. S.; "High Blood Pressure—Pharmacology and Management," Carl J. Malanga, Ph. D.; and (speaker and topic to be announced.)

May 7, "The Abusing Family" (A special mental health training program. Speakers to be announced.)

MU Medical School Receives Full Accreditation

The Marshall University School of Medicine, which graduates its first class in May, has received full accreditation from the Liaison Committee on Medical Education (LCME).

This was the earliest that the Medical School was eligible for full accreditation. New schools normally become eligible when their first class is ready to graduate.

The announcement was made jointly by MU President Robert B. Hayes and Dr. Robert W. Coon, Dean of the Medical School.

"This is a red-letter day for the Medical School," Doctor Hayes said. "The medical education accrediting organization's approval of our School is the result of a great deal of work on the part of everyone involved," the President said, praising Doctor Coon and his faculty for their efforts. "We said at the beginning that we would settle for nothing less than a quality program, and this is confirmation that we have such a program," he added.

"As is the case with any new school, the accreditation will be for a two-year period during which the LCME will continue to observe our progress in developing programs," Doctor Coon said. "There is every reason to believe that our accreditation period will be increased then," he noted.

In 1972, Congress passed the Veterans Administration Medical School Assistance and Health Training Act which provided federal funding for up to eight new medical schools at state-supported universities in conjunction with existing VA Medical Centers.

Marshall officials and others, working closely with members of the southern West Virginia medical community and other community leaders, took this opportunity to turn a dream of several years into reality and began developing a medical education program with an emphasis on training primary care physicians, utilizing existing clinical facilities.

Two years later, Marshall was selected as the site for one of these VA-funded schools, and development efforts intensified. In January, 1976, Marshall proved to the LCME that its program was viable and received its "letter of reasonable assurance of accreditation" needed to free VA funding to further develop the school.

In October, 1977, the school received provisional accreditation from the LCME, and the first class began its studies in January, 1978. Today, the school has 116 students studying for the M. D. degree, a master's degree program and a doctoral program in conjunction with West Virginia University in the biomedical sciences, residency programs in most of the primary care specialities, research programs, and a continuing medical education program for practicing physicians. The full-time faculty numbers more than 70, while there is a volunteer faculty (unpaid) of more than 200 physicians from the region.

Dr. Ralph H. Nestmann of Charleston, left photo, listens to discussion during the 14th Mid-Winter Clinicall Conference sponsored by the State Medical Association and the Marshall University and West Virginia University Schools of Medicine in Charleston January 23-25. Doctor Nestmann is Co-Chairman of the Program Committee. Enjoying a conversation during a conference break (center) are Drs. Lewis N. Fox, left, of MacArthur (Raleigh County) and Walter E. Klingensmith, Beckley. On the right, Dr. W. Gene Klingberg, Morgantown, makes notes following his presentation during the physicians' session conducted by the West Virginia Medical Institute, Inc., Friday evening, January 23. He was one of four speakers at that session.

Surgeons To Meet In May In Morgantown

The West Virginia University Department of Surgery has announced a joint meeting with the Moynihan Chirurgical Club to be held May 16-20 at the WVU Medical Center and Lakeview Inn and Country Club in Morgantown.

The scientific program of the meeting will be held on Tuesday, May 19, at the Medical Center.

Reservations are requested by April 20, and may be made through the office of Alvin L. Watne, M. D., WVU Professor and Chairman of Surgery.

Papers by 12 members of the WVU faculty will be presented during the scientific program, including:

"Carotid Subclavian Bypass"—Ronald A. Savrin, M. D., Assistant Professor of Surgery; "Intracranial Revascularization"—John Le Roy Fox, M. D., Professor of Neurosurgery; "Carotid Occlusive Disase in Coronary Artery Surgery"—Thomas J. Tarnay, M. D., Professor of Surgery; "Wilms Tumor Update" — Ellen Hrabovsky, M. D., Associate Professor of Surgery;

"Radiofrequency Electro-Coagulation for Tic Douloureux and Pain, Disorders of the Face"—G. Robert Nugent, M. D., Professor and Chairman of Neurosurgery; "Studies in Polyposis Coli" — Doctor Watne; "Choledochal Cyst" — Robert A. Gustafson, M. D., Chief Resident in Surgery; "Biliary Duct Complications"—Bernard Zimmermann, M. D., Professor of Surgery;

Parathyroid Disease

"Diagnosis of Parathyroid Disease"—Stanley R. Shane, M. D., Professor of Medicine; "Surgical Management of Parathyroid Tumors" — Howard H. Harris, M. D., Assistant Professor of Surgery; "Pheochromocytoma—Diagnosis and Initial Medical Management" — Edmund B. Flink, M. D., Professor of Medicine; and "Operative Experience with Pheochromocytoma"—Walter H. Moran, Jr., M. D., Professor of Surgery.

The scientific program meets the criteria for six hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association.

Preliminary meeting activities will begin on Saturday, May 16, with the School of Medicine graduation and include a tour of Fort Necessity and Falling Waters, golf tournament, whitewater rafting, trout fishing and ladies luncheon.

A reception and dinner will be held following the Tuesday scientific program.

For registration and other information, contact Doctor Watne's office at (304) 293-3311.

New Ways To Manage Diabetes WVU Workshop Theme

New aspects of diabetes management will be highlighted during a one-day series of lectures, demonstrations and educational displays at West Virginia University Medical Center in Morgantown on Saturday, May 2.

The "Workshop on Diabetes Management: Nutrition, Home Monitoring, and the Pump," is designed to improve the skills of physicians, nurses, dietitians, paramedical personnel, and dibetics and their families in the management of diabetes. Other objectives are to present an update of new directions and new techniques for diabetes control, and to translate the results of current diabetes research into a plan of care for persons with insulin-dependent and non-insulin-dependent diabetes mellitus.

Dr. James Anderson, Professor of Medicine at the University of Kentucky in Lexington, will lead off the program with a talk on dietary fiber in the control of diabetes.

Following will be talks on new directions in diabetes management, with emphasis on control of blood sugar, by Edmund B. Flink, M. D., WVU Professor of Medicine, and Irma H. Ullrich, WVU Associate Professor of Medicine.

In the afternoon, Dr. Elliott W. Chideckel, WVU Associate Professor of Medicine, will hold a one and one-half hour working conference with physicians and nurses on techniques of home blood sugar monitoring and its use in the management of diabetes. In a concurrent session, a panel discussion on diabetic diet, the new insulins and other topics of interest to lay persons will be conducted by members of the WVU Hospital Department of Dietetics and the hospital pharmacy.

Insulin Pump

Dr. Angel M. Vasquez, WVU Professor of Family Practice and Pediatrics, then will lead a discussion of the insulin-delivering portable pump, including a demonstration of its use by a patient. Alternative ways for injecting insulin, i.e., the "gun," also will be demonstrated.

Dr. Stanley Roy Shane, WVU Professor of Medicine, will discuss the role of exercise in both insulin-dependent and non-insulin-dependent diabetes.

The program meets the criteria for five hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association.

Sponsors are the West Virginia Affiliate, American Diabetes Association; Section of En-

docrinology and Metabolism, WVU Department of Medicine; and the WVU Office of Continuing Medical Education.

For additional information, contact the WVU Office of Continuing Medical Education at (304) 293-3937.

Course On Balance Disorders Planned In Wheeling

Four out-of-state speakers will participate in a one-day course on balance disorders sponsored by Wheeling Hospital on Thursday, May 28.

The program, entitled, "Second Continuing Education Course on Balance Disorders," will be held from 8:25 A. M. through 4:45 P. M. in Seminar Rooms A and B at the hospital. It is designed for the family practitioner and specialists seeking better understanding and improved competence in the diagnosis and management of the patient with any form of dizziness or disequilibrium.

Members of the faculty will be Ralph J. Caparosa, M. D., Clinical Professor, Otolaryngology, University of Pittsburgh; Manuel Tzagournis, M. D., Professor and Acting Dean, Medicine, and Charles W. Stockwell, Ph.D., Associate Professor, both of Ohio State University, Columbus; Michael F. Rein, M. D., Associate Professor, Medicine, University of Virginia, Charlottesville; and Philip M. Sprinkle, M. D., Professor and Chairman, Otolaryngology, West Virginia University, Morgantown.

Topics will include "Anatomy and Physiology of Balance System," "Diagnosis and Evaluation of Cochleovestibular Diseases," "Diagnosis, Evaluation and Therapy of Meniere's Disease," "Chlamydial Infection and Visual Impairment," "Neurosyphilis and New Concepts of Therapy of Venereal Diseases," "Hyperlipidemia," "Diabetes Mellitus and Cerebro-Vascular Disease," "Herpes Viruses and Other Latent Viral Infections," "Immune Injuries," and "Electronystagmorgraphy."

The course meets the criteria for seven hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association — and also is acceptable for seven Prescribed hours by the American Academy of Family Physicians.

The registration fee, which includes materials, luncheon, refreshments and cocktails, is $25.

For further information, write to Hong I. Seung, M. D., Wheeling Hospital, Medical Park, Wheeling 26003.

English Doctor To Visit MU Medical School

Dr. David Grahame-Smith, Rhodes Professor of Clinical Pharmacology at the University of Oxford, England, will visit the Marshall University School of Medicine April 6-10, Dr. Donald S. Robinson, MU Pharmacology Department Chairman, announced.

Sponsored by the Burroughs Wellcome Fund as the William N. Creasy Visiting Professor of Clinical Pharmacology, Doctor Grahame-Smith will conduct several research and clinical seminars, address the Cabell County Medical Society, and participate in clinical teaching rounds with the Medical School Medicine and Pharmacology departments.

A schedule of his formal presentations follows:

April 6, Monday, noon, research seminar, "Neuropharmacological Effects of Electroconvulsive Shock—Its Relevance to the Antidepressant Effect of ECT," Doctors' Memorial Building Annex, Room 1; April 7, Tuesday, noon, research seminar, "Clinical Pharmacology at the Molecular Level," Doctors' Memorial Building Annex, Room 1;

April 9, Thursday, 6:30 P. M., Cabell County Medical Society lecture, "Prescribing in Perspective," Gateway Holiday Inn, Barboursville; and April 10, Friday, 1 P. M., seminar, "The Carcinoid Syndrome," VA Medical Center, Walsh Conference Room.

Doctor Grahame-Smith has been a Rhodes Professor at Oxford and Honorary Director of the Medical Research Council Unit of Clinical Pharmacolology for Oxford's Radcliffe Infirmary since 1971.

"His work has contributed signifiicantly to our understanding of the roles of serotonin and other amines in central nervous system function," Doctor Robinson said.

State, Pennsylvania Surgeons Plan Joint Meeting

Papers by 10 physicians are scheduled for the joint meeting of the West Virginia and Southwestern Pennsylvania Chapters of the American College of Surgeons April 30-May 2. The site will be the Greenbrier in White Sulphur Springs.

Speakers and topics for the Thursday, April 30, program will be "Clinical Results of Early Prostatic Cancer Treated by Pelvic Lymphadenectomy and Iodine-125 Implants"—Stanley J. Kandzari, M. D., Professor Surgery, West Vir-

(Continued on Next Page)

ginia University School of Medicine; "Palliation for Carcinoma of the Esophagus" — John A. Hunt, M. D., Associate Professor of Surgery, Marshall University School of Medicine;

"Operation of Choice for Cancer of the Breast" —Benjamin Rush, M. D., Chairman, Department of Surgery, College of Medicine and Dentistry of New Jersey; and "Breast Reconstruction Post-Mastectomy"—David C. Fogarty, M. D., Morgantown, WVU Clinical Assistant Professor of Surgery.

Doctor Rush also will speak during the Southwestern Pennsylvania Chapter program on Friday. His subject will be "Current Treatment of Surgical Shock."

Presenting papers on Saturday will be Lewis Clayman, M. D., MU Chief of Oral and Maxillary Surgery, on "Orthognathic Surgery;" Donald E. McDowell, WVU Associate Professor of Surgery, "Pseudocyst of the Pancreas as a Cause of Jaundice;" and Stephen M. Zekan, M. D., Instruction of Surgery, WVU Charleston Division, "Splenic Autotransfusion with Demonstration of Function."

First-, second- and third-prize papers by residents also will be presented during the meeting.

Health Education Workshops Slated In Six Cities

"Health Education Update," one-day workshops for West Virginia's health professionals, will be held in six state cities during April and May.

The workshops are designed to constitute a continuing education program for persons involved in consumer health and patient education. The sponsor is Area Health Education Center Project, West Virginia University, Division for Continuing Education, Center for Extension and Continuing Education.

Topics will include "Diabetes Self-Cure," "Hypertension Self-Care" and "Stress Reduction."

The schedule and cities will be:

"Diabetes Self-Care"—Canaan Valley, April 29; Logan, May 6; Princeton, April 15, and Welch, April 16;

"Hypertension Self-Care"—Buckhannon, May 27; Canaan Valley, May 28; Charleston, May 7, and Welch, May 19;

"Stress Reduction"—Buckhannon, April 22; Charleston, April 9; Logan, April 8, and Princeton, May 21.

For specific locations in cities and other information, call Natalie Ames, WVU, at (304) 293-4892.

Medical Meetings

April 4—WV Branch #41, Am. Med. Woman's Assn., Huntington.

April 4-9—Am. Academy of Pediatrics, Washington, D. C.

April 6-9—Am. College of Physicians, Kansas City, Mo.

April 8-11—Tenn. Med. Assn., Knoxville.

April 10-12—WV AAFP Scientific Assembly, Charleston.

April 15-16—WV Chap., Am. Academy of Pediatrics, Huntington.

April 22-30—Am. College of Obstetricians & Gynecologists, Las Vegas.

April 24-25—WV Assn. of Blood Banks, Morgantown.

April 24-26—Pediatric Springfest (MCV Dept. of Pediatrics), Richmond, Va.

April 26-29—WV Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 30-May 2—WV Chapter, Am. College of Surgeons, White Sulphur Springs.

April 30-May 2—Am. Society of Clinical Oncology, Washington, D. C.

May 2—Workshop on Diabetes Management (WV Affiliate, Am. Diabetes Assn.; and WVU), Morgantown.

May 6—Medical/Science Colloquium, Washington & Jefferson College, Washington, Pa.

May 6-9—Va. Society of Ophthalmol. & Otolaryngol., Inc., Virginia Beach.

May 10-13—Am. Thoracic Society, Detroit.

May 10-13—Am. Lung Assn., Detroit.

May 10-14—Am. Urological Assn., Boston.

May 16-20—WVU Dept. of Surgery/Moynihan Club, Morgantown.

May 16-20—Ohio State Med. Assn., Cleveland.

May 17—Ocular & Renal Complications in Diabetes Mellitus (Western Pa. Hospital), Pittsburgh.

May 28—CME Course on Balance Disorders (Wheeling Hospital), Wheeling.

May 31-June 5—First WV School of Behavioral Health Studies (WV Dept. of Health), Morgantown.

June 5-6—WV State Society of Anesthesiologists, Morgantown.

June 7-11—AMA House of Delegates, Chicago.

Aug. 20-22—114th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.

Oct. 1-4—ASIM, New York City.

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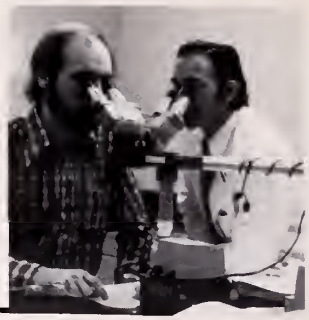
WVU Medical Center
–News–



Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Addition To Basic Sciences May Begin This Year

Plans for the WVU Medical Center's addition to its Basic Sciences Building include more classroom space for the Center's 1,500 students, an auditorium that will seat 185, and offices and laboratories designed with an eye to the future as well as the present.

A portion of Parking Lot 61, at the rear corner of the existing building adjoining the Center's post office, will be used to make way for the 20,000-square foot, three-floor addition that will have architectural features and exterior materials harmonious with the original structure.

The 11-member Basic Sciences Building Committee chose the site after evaluating several possibilities. Estimated time of construction is approximately 18 months, barring labor disputes and supply problems, and work might begin this year.

Ground floor design includes the auditorium/lecture hall complete with audiovisual projection facilities and lobby area, conference rooms and maintenance and storage space.

Laboratory/office combinations and conference space will dominate the first floor. The second-floor layout will be of similar design but with the potential to be converted to a facility for doing more advanced recombinant DNA studies and other experiments which require physical containment of infectious microorganisms and carcinogens.

Medical Center researchers now use recombinant DNA techniques which require certain safety measures already present in the building, but air locks, limited access and other measures would be needed for proposed work at the more sophisticated level of genetic engineering.

Clinical research space was limited when the Medical Center was built, so there is that inherent need that the new addition should help relieve along with providing the space for teaching greaters numbers of students.

John A. Thomas, Ph. D., Associate Dean and Professor in the School of Medicine and Chairman of the Basic Sciences Building Committee, said research space in the addition will go to faculty investigators, whether basic or clinical, whose active and ongoing projects necessitate more advanced facilities.

Expansion In Ophthalmology Seen By Chairman

WVU School of Medicine's new Chairman of Ophthalmology George W. Weinstein, M. D., sees more teaching, training, patient service and research opportunities resulting from current expansion and renovation of the Medical Center's various eye care programs and facilities.

Doctor Weinstein, head of the Department since the retirement of Dr. Robert R. Trotter last year, said the program has functioned well since its beginning 20 years ago, "but we now need to develop it even further."

"In the area of education, we continue to have six residents in training—two in each year of a three-year program. We expect, however, to increase our teaching to medical students because those who will be going into primary care fields such as family practice, internal medicine and pediatrics need to know much about basic conditions as they affect the eye.

"We are not very far behind in providing enough eye specialists for the state. There are a reasonable number, maybe slightly fewer than there should be. But we are very far behind, we think, in extending information about the eye to primary care practitioners. A large variety of these conditions are found in patients who come to the family doctor for treatment . . . "

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Third-Party News, Views and Program Concerns

Compensation Fund Outlines Change In Procedure

Editor's Note: Here is additional discussion of procedural changes within the West Virginia Workmen's Compensation Fund by Commissioner Gretchen O. Lewis. The first article appeared in the March issue of *The Journal*.

As we have related to you previously, the information provided to the Fund by the medical community is the basis for virtually all decisions in administering our program. It is for this reason we wish to work closely with you, and to keep you abreast of policy and procedural changes within the Fund.

One area of concern to the Fund and to you as the physician is the increasing number of special examinations necessary in our processing of claims. We would like to distinguish for you the difference between our two most numerous types of referrals — the "120-day examination" versus the permanent partial disability examination.

The "120-day examination" is mandated by the Workmen's Compensation Act (*Code 23-4-7A*) in those claims where temporary total disability continues longer than 120 days from the date of injury or from the date of the last preceding examination, and is for the basic purpose of securing an independent opinion of the injured worker's condition, need of additional or ongoing treatment, and the disability status. While this examination may involve the question of maximum medical recovery and the degree of permanent disability, these issues are not the primary purpose of this examination. Several examinations of this type are being made unnecessarily in cases where the patient recently has undergone a procedure, surgery, etc., that would permit a waiver of the special examination; however, our file may not contain current information with regard to the treatment provided. It is, therefore, extremely important that we be notified immediately of any such treatment in order to eliminate the burden imposed on the claimant in reporting for an unnecessary examination, and also to avoid taking up the valuable time of those who are doing special examinations.

Permanent Partial Disability

A permanent partial disability examination is for the purpose of determining maximum medical recovery and the degree of disability resulting from an injury and/or occupational disease. This type of referral usually is not made until the injured worker has returned to employment or been certified as having reached maximum medical recovery by the treating physician. However, with this type examination, as with all other types, if it is determined that a need for additional treatment exists, it is our aim to insure that the worker receives such treatment as may be indicated.

When you receive referrals for permanent partial disability examinations that are stamped in red, "Priority Scheduling Requested," please make every effort to see these claimants quickly. If it is possible, we would appreciate our Special Examiners setting some appointment times aside for this type of referral. The *priority requests* are made only when a claimant has been certified as having reached maximum medical recovery *and* has not returned to work. This means that income benefits have ceased by law and that these workers will receive no further income until you have examined them, the report has been received by us, and action taken.

Form Discontinued

We also wish to advise that, effective May 1, the "Request for Authorization" form (WC-212) will no longer be used by the Fund. This form has certain inherent shortcomings, and often results in delaying authorizations for treatment needed by the injured worker. To help insure the prompt processing of your request for authorization of services, it is requested that you note at the top of your correspondence that the letter pertains to an authorization simply by typing the word "Authorization" at the top

(Continued On Page xx)

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™, Ru-Tuss® and Ru-Vert®. This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-Cl™

For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.

For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
  The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.

F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema, infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye, tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz.) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-Cl™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-Cl is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-Cl may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-Cl be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-Cl taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-Cl are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

MANUFACTURED & DISTRIBUTED BY

Boots Pharmaceuticals, Inc.

Shreveport, Louisiana 71106

Pioneers in Medicine For the Family

Cardiac Rehabilitation Institute offers the following services:

STRESS ELECTROCARDIOGRAMS

- Diagnosis of Heart Disease
- Work Evaluation
- Exercise Program & Capabilities
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- Arrhythmia Detection

HOLTER DYNAMIC ELECTROCARDIOGRAMS

- Rhythm Disturbances
- All Degrees of AV Block and Bradycardia
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- Rule Out the Cardiac Origin of Neurologic Symptoms
- For Evaluation and Monitoring of Arrhythmia and Ischemia
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- Resting Study

CARDIAC REHABILITATION

- Exercise Conditioning
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- Spouse Education
- Social and Emotional Health Counseling
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- Cardiac Drug Therapy

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Phone: 412/682-6201
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You are welcome to visit our facilities at your convenience.

Obituaries

BASIL L. PAGE, M. D.

Dr. Basil L. Page, Buckhannon surgeon for 39 years until his retirement in 1968, died on March 2 in a hospital there. He was 81.

A native of French Creek (Upshur County), he was graduated from West Virginia Wesleyan College and received his M. D. degree in 1926 from Western Reserve University.

He served his internship and residency at City Hospital in Cleveland, and opened his medical practice in Buckhannon in 1929.

Doctor Page was a Fellow of the American College of Surgeons, and an honorary member of the Central West Virginia Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include the widow and a daughter, Mrs. Philip Ransdell of Fuquay-Varina, North Carolina.

* * *

PAUL LEVISON, M. D.

Word recently was received by *The Journal* of the death of Paul Levison, M. D., of Arlington Heights, Illinois, formerly of Beckley, on October 27, 1980, in Arlington Heights. He was 84.

A specialist in tubercular diseases, Doctor Levison was a native of Buende, Germany. He received his M. D. degree in 1922 from Ludwig Maximilian University in Munich, Germany.

Doctor Levison interned at Misericordia Hospital in New York City and completed a residency at Triboro Hospital for Tuberculosis in Jamaica, Long Island, New York.

A former staff member of Pinecrest Sanitarium in Beckley, he went to Arlington Heights in 1966.

He was an honorary member of the Raleigh County Medical Society.

Survivors include the widow.

* * *

JOHN B. HALEY, SR., M. D.

Dr. John B. Haley, Sr., co-founder of the Eye & Ear Clinic of Charleston, Inc., died on February 17 in a Charleston hospital. He was 71.

A native of Charleston, Doctor Haley was graduated from the University of Virginia and received his M. D. degree in 1934 from that institution's Medical School.

(Continued On Page xx)

CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications: Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings: Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions: Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions: Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS.) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure: Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

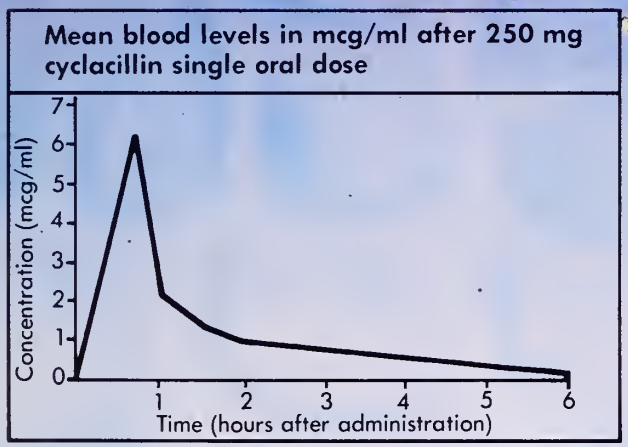
INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight < 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults
†depending on severity

Wyeth Laboratories
Philadelphia, Pa. 19101

Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{α} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Wyeth Laboratories • Philadelphia, Pa 19101

Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN®-W

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NEW NAME

County Societies

CABELL

The Cabell County Medical Society met on February 12 at the Gateway Holiday Inn in Barboursville.

The guest speaker was Dr. J. Kelly Smith, Associate Chairman of Medicine at the East Tennessee School of Medicine in Johnson City. He presented an interesting and informative talk on "Evolution and Immunity."

Dr. Charles E. Turner presented a plan for establishing a permanent office of the Society and to employ a part-time clerk-typist. He asked for approval in principle of this plan and indicated that there would be financial estimates of the cost within a few meetings. The Society approved his motion to this effect.

The Society stood in silent remembrance of Dr. John J. Brandabur of Huntington, who died in the preceding week. — Maurice A. Mufson, M. D., Secretary.

McDOWELL

The McDowell County Medical Society met on February 11 at the Stevens Clinic Hospital in Welch.

The speaker was Dr. Sanga Tan, internist and infectious diseases specialist on the staff of Stevens Clinic Hospital. Doctor Tan discussed antibiotics in the emergency infectious diseases, including the diagnosis and treatment of CNS infections, acute epiglottitis, respiratory infections, endocarditis, abdominal sepsis, bone and joint infections, sepsis in immuno-compromised host and sepsis in unknown origin.—Muthusami Kuppusami, M. D., Secretary.

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THIRD-PARTY NEWS—*Continued*

of your request. Your letter should contain the injured worker's current medical status, treatment being rendered, prognosis, and the reason for the requested authorization. It is hoped this change will permit more efficient claims management by the Fund and insure quality medical care for the injured worker.

OBITUARIES—*Continued*

He interned at Wilmington (Delaware) General Hospital and completed a residency at the former Mountain State Hospital in Charleston. He also completed graduate work at the Long Island Eye and Ear Hospital in Brooklyn, New York.

Doctor Haley was a member of the Kanawha Medical Society, West Virginia State Medical Association, American Medical Association and American College of Surgeons.

He was an Army veteran of World War II.

Survivors include two sons, Dr. John B. Haley, Jr., of Charleston and Timothy S. Haley of Dillon, South Carolina; and one brother, Dr. Peter A. Haley of Charleston.

Pediatrician Needed

Excellent opportunity for a qualified pediatrician with a modern, progressive 228-bed-community hospital located in Point Pleasant, West Virginia. Unlimited potential; competitive first-year guarantee. Send resume to Assistant Executive Director, Pleasant Valley Hospital, Valley Drive, Point Pleasant, WV 25550.

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WANTED—Mountaineer Family Health Plan, a pre-paid primary care program needs a general/family practitioner or internist for ambulatory patient care. Licensure in West Virginia required. Financial arrangements are negotiable. Call or write Douglas E. Tolbert, Executive Director, 228 Mellon Street, Beckley, WV 25801. Telephone: (304) 252-8551.

PHYSICIAN WANTED—An experienced practitioner to add to and work with an established group in Charleston. Excellent working conditions with regular hours and minimal night work. Liberal vacation, sick leave and holiday program. Pension plan, Social Security, and professional liability insurance coverage. Apply Charles E. Staats, M. D., 123 West Washington Street, Charleston, WV 25302 —Telephone: (304) 346-0381.

WANTED—Board eligible or certified Obstetrician/Gynecologist needed for small town of 6,000. Modern hospital with latest equipment to work with available. Financial arrangements and office space negotiable. Contact J. N. Vallandingham, Administrator, Summers County Hospital, Hinton, WV 25951. Telephone: (304) 466-1000.

FAMILY PRACTICE OPENINGS — Pendleton County offers the rural medical practice challenge you are seeking. Located in the picturesque Eastern Panhandle town of Franklin are a group of active and interested businessmen and citizens committed to recruiting and financially supporting the establishment of new practices. This opportunity is worth exploring! Contact George I. Sponaugle, President of Pendleton Industries, Franklin, WV 26807. Telephone: (304) 358-2337.

PSYCHIATRIST WANTED—To fulfill the critical need in West Virginia Mental Institutions. Qualification: Board eligibility, with a desire to become Board Certified. MUST BE DEDICATED, ability to take the initiative, be productive, and work harmoniously with all personnel. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

WANTED—Physician to fulfill the critical needs in West Virginia's State Institutions. Qualification: A permanent license to practice medicine in West Virginia and three years of full-time paid experience. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

WANTED—Two emergency service physicians to join a four-member group on a private fee for service practice basis at a 215-bed community hospital located in Princeton, West Virginia. Contact Tom Benoit, Associate Administrator, Princeton Community Hospital, Princeton, WV 24740. Telephone: (304) 425-2434.

WANTED—A physician for the twin towns of Harpers Ferry and Bolivar, West Virginia—about 8 miles from Charles Town, where there is a hospital. Serving a population of 1500. Twin towns located in scenic mountain area, good fishing and Harpers Ferry National Park—approximately 1½ hours' drive from Washington, D. C. Contact Mr. Reid V. Geronimo, President Bolivar Civic Association, Route 1, Box 5, Harpers Ferry, WV 25425. Telephone: (304) 535-6528.

EMERGENCY ROOM PHYSICIAN—Immediate opening for full-time career-oriented Emergency Physician needed for 250 bed, newly built Bluefield Community Hospital, to join the established Emergency Medical Group, Inc. Flexible schedule, salary negotiable, group offers pension plan, life and disability insurance, medical and liability insurance, vacation and educational benefits. Please contact Surrinder K. Chopra, M.D., Chief, Emergency Medicine, Bluefield Community Hospital, Bluefield, WV 24701. Telephone: (304) 327-2511.

WANTED—Young physicians for growing town with diversified industry. Major coal expansion. West Virginia Wesleyan College. Good place to live. Town of over 7,000. Rural setting. Pleasant surroundings easily accessible to multiple recreation areas. Modern hospital. Cooperative medical staff. Openings for several family practitioners preferrably interested in obstetrics; pediatrician and Ob-Gyn specialist. Contact Joseph B. Reed, M.D., 93 West Main Street, Buckhannon, WV 26201. Telephone: (304) 472-6041.

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faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended, therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage. 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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1. Rubin RH, Swartz MN *N Engl J Med 303* 426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

maximizes results with B.I.D. convenience

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* due to susceptible strains of indicated organisms

Please see previous page for summary of product information.

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JUN 1 1 1981

The West Virginia Medical Journal

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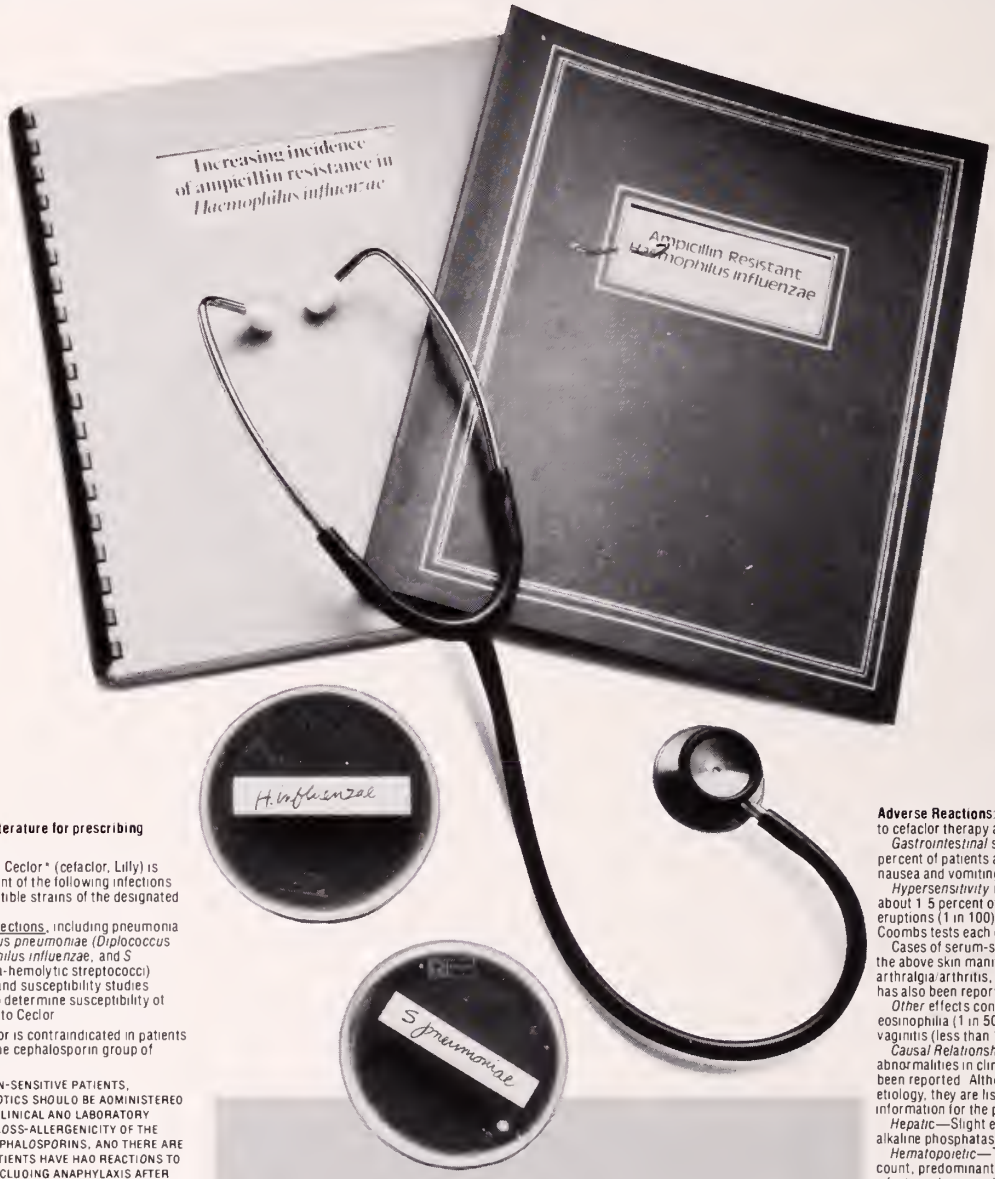
The Association's Real Goal
Page 143

114th Annual Meeting, The Greenbrier
August 20-22, 1981

Volume 77 Number 6

June 1981

An added complication... in the treatment of bacterial bronchitis*



Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest* tablets but not with Tes-Tape* (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* *

Note: Ceclor* (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information

References

1 Antimicrob Agents Chemother , *8* 91, 1975
2 Antimicrob Agents Chemother , *11* 470, 1977
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5 Current Chemotherapy (edited by W Siegenthaler and R Luthy), II: 880 Washington, D C American Society for Microbiology, 1978
6 Antimicrob Agents Chemother , *13* 861, 1978
7 Data on file, Eli Lilly and Company
8 Principles and Practice of Infectious Diseases (edited by G L Mandell, R G Douglas, Jr , and J E Bennett), p 487 New York John Wiley & Sons, 1979

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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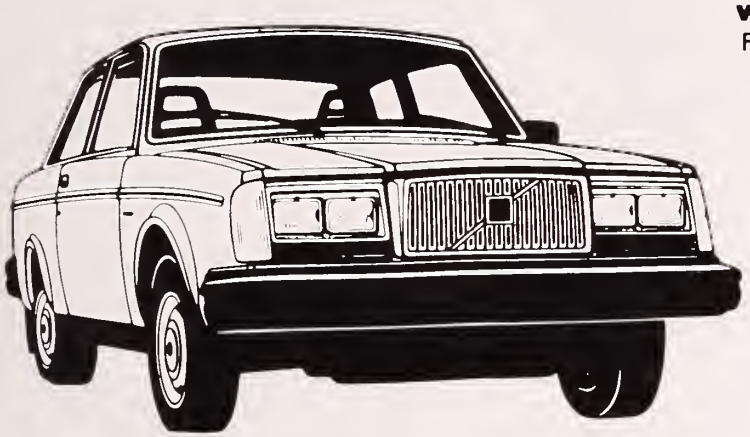

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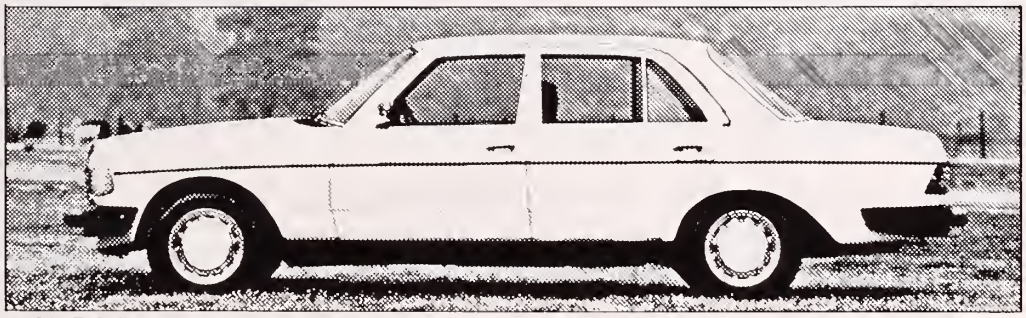

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DRAMATIC NEW CLINICAL PROOF*

In the treatment of impetigo–

- **100% cure rate with Tegopen®** (cloxacillin sodium)
- **only a 60% cure rate with penicillin V-K**

As seen on admission

After one week of penicillin V-K therapy

Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® (*cloxacillin sodium*)	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus*, 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes*, and 1% beta-hemolytic *Streptococcus*.‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®
(cloxacillin sodium)
–effective therapy for staph infections of the skin and skin structures

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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Division of Bristol-Myers Company
Syracuse, New York 13201

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OF CDC, CAP and
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BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™, Ru-Tuss® and Ru-Vert®. This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-Cl™

For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.

For Potassium Supplementation Improved Compliance...

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
  The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.

F-E-P CREME

DESCRIPTION
F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema, infantile eczema, endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics

CONTRAINDICATIONS
Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella)

WARNINGS
This product is not for ophthalmic use
In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY
Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS
F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.
Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.
Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy

ADVERSE REACTIONS
Skin rash or hypersensitivity may occur following topical application.
The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION
Apply a thin layer of the drug to affected parts 3-4 times daily.
Note:
1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.
July 1980

SU-TON®

DESCRIPTION
Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE
SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency

CONTRAINDICATIONS
Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS
The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS
Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia

ADVERSE REACTIONS
Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol

DRUG ABUSE
Drug dependence has not been reported with SU-TON

OVERDOSAGE
Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.
Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION
One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED
Bottles of 473 ml (16 fl oz) NDC 0524-0015-16
Federal law prohibits dispensing without prescription.
February 1980

TWIN-K

DESCRIPTION
Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE
For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS
Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS
TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.
To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS
Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.
The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.
Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.
In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS
Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.
TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE
The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:
1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly

DOSAGE AND ADMINISTRATION
The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.
Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED
Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION
Federal law prohibits dispensing without prescription.
July 1980

TWIN-K-Cl™

DESCRIPTION
Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS
For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.
Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other

CONTRAINDICATIONS
Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS
TWIN-K-Cl is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-Cl may cause a saline laxative effect.
To minimize gastrointestinal irritation, it is recommended that TWIN-K-Cl be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS
Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.
The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.
Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.
In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS
Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves
TWIN-K-Cl taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE
The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes:
Treatment measures include:
1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION
The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-Cl are to be avoided.
Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)
NDC 0524-0022-16

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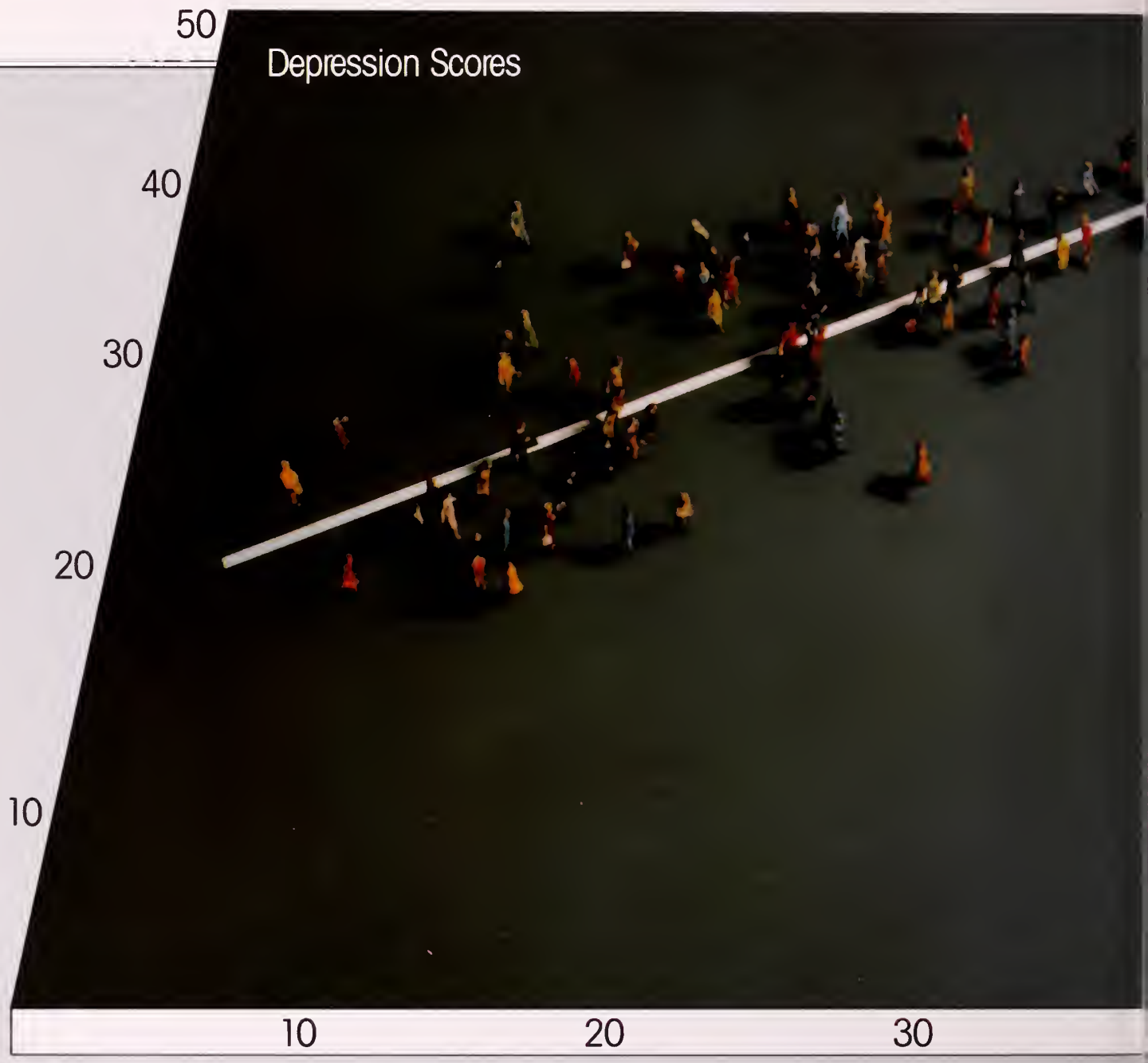
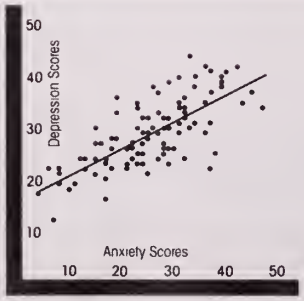
FOR THE 7 OF 10 NONPSYCHOTIC





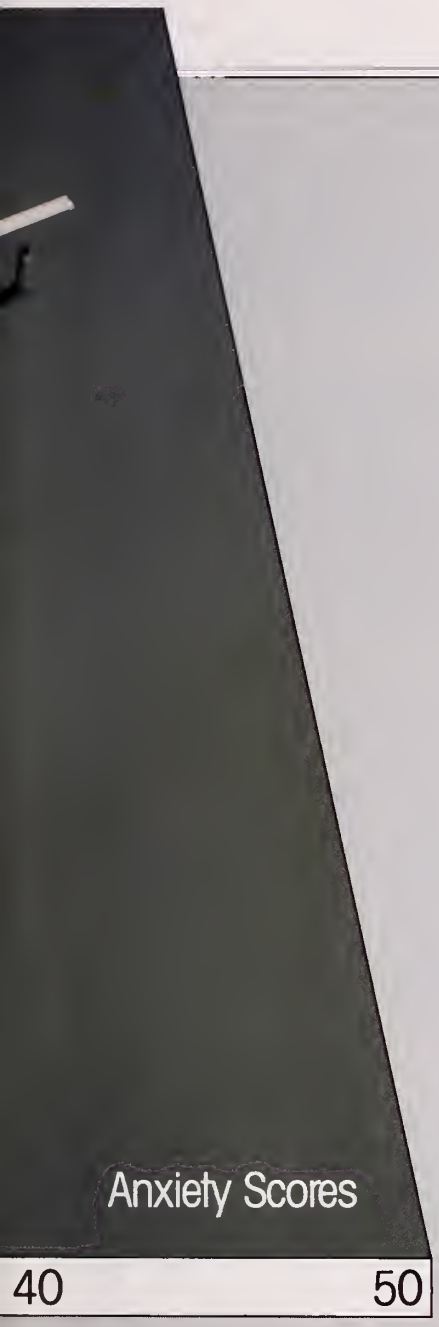
Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Clagharn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

ROCHE®

DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]



Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35:*1359-1365, 1978. **3.** Cloghorn J: The anxiety-depression syndrome. *Psychosomatics 11:*438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137:*1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61:*217-225, 1979.

In moderate depression and anxiety

Limbitrol® CIV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer–Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

***Usage in Pregnancy*: Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage. Withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide)
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.
In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)— bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50.

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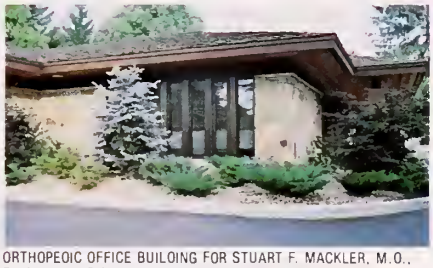
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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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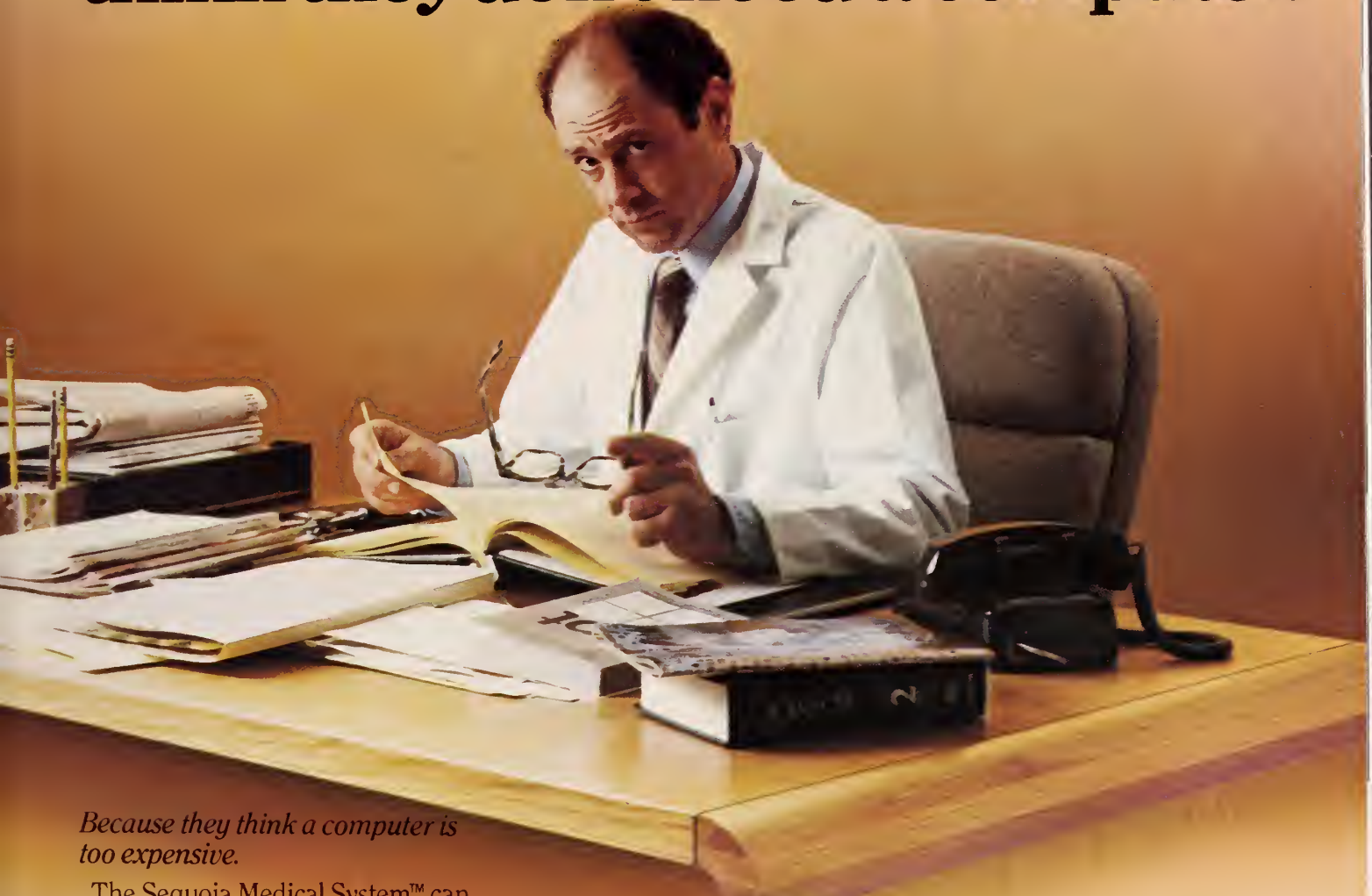

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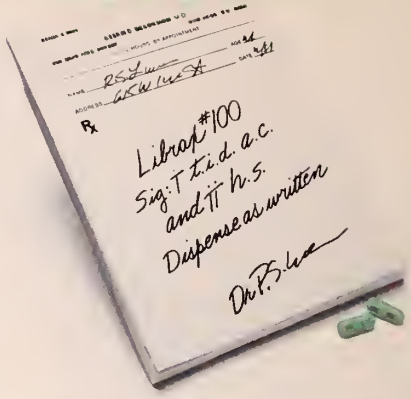

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving) Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated) Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines Observe usual precautions in presence of impaired renal or hepatic function Paradoxical reactions reported in psychiatric patients Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges Syncope reported in a few instances Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets

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Antianxiety/Antisecretory/Antispasmodic

*Librax has been evaluated as possibly effective for this indication. Please see brief summary of prescribing information on facing page.

Photograph of simulated gastric hypersecretion.

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.
40
35
30
25
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An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate–it makes sense. And it's responsible medicine.

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Tenuate® ⓒⅣ
(diethylpropion hydrochloride NF)

Tenuate Dospan® ⓒⅣ
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly. *Drug Dependence.* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression, changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy.* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children.* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular.* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System.* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache, rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal.* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic.* Urticaria, rash, ecchymosis, erythema. *Endocrine.* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System.* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous.* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride). One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release. One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of January, 1980

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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al. A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs. S. Garattini and R. Samanin, Ed., New York: Raven Press, 1978, pp. 391-404.

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Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

*__INDICATIONS__: Based on a review of this drug by the National Academy of Sciences—National Research Council and or other information, FDA has classified the indications as follows
"Possibly" effective for the treatment of pain accompanied by tension and or anxiety in patients with musculoskeletal disease or tension headache
Final classification of the less-than-effective indications requires further investigation
The effectiveness of Equagesic in long-term use i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate
WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures
Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination
USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered
Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under
PRECAUTIONS: Should drowsiness, ataxia or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery
Suicidal attempts with meprobamate have resulted in coma shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow CNS stimulants, e g caffeine, Metrazol or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels
ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness
A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions
Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae ecchymoses, peripheral edema, and fever have also been reported
More severe cases, observed only very rarely may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted
Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug
Impairment of accommodation and visual acuity has been reported rarely
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which if it occurs, usually requires whole-blood transfusions
DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

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for mild to moderate pain

Wygesic®IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**)
DRUG DEPENDENCE. Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine s although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e g driving a car or operating machinery Patients should be cautioned accordingly
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore propoxyphene should not be used in pregnant women unless in the judgement of the physician the potential benefits outweigh the possible hazards
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation nausea and vomiting These seem more prominent in ambulatory than in nonambulatory patients some of these reactions may be alleviated if the patient lies down
Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria dysphoria, and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine
MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea cardiac arrest and death have occurred
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia and abdominal pain beginning shortly after ingestion and lasting for 12 to 24 hours However, early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill, however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia encephalopathy, coma and death may follow Renal failure due to tubular necrosis, and myocardiopathy, have also been reported
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists naloxone nalorphine and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered preferably I V , simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient s condition remains satisfactory In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions
Oxygen IV fluids vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

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Testicular Scanning At Memorial Division, Charleston Area Medical Center

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Testicular scanning is a sensitive test to detect testicular torsion when performed with adequate technology. The difficulties in interpretation in this series were between torsion of several days' duration and abscess; both present with an area of decreased activity surrounded by increased activity.

It should be emphasized that testicular scanning should not delay surgical correction of an obviously torsed testicle, but many presentations of scrotal pain and swelling are not readily diagnosed when first seen in the emergency room. It is these patients who benefit from a scan.

Radionuclide imaging of the testicles with Na99mTc04 was first performed in 1973 using a rectilinear scanner. The initial use of testicular scanning was to differentiate torsion from epididymitis. Since then, scanning has been used to evaluate patients with scrotal pain or swelling of more varied etiologies in subsequently reported series.

Reports of testicular torsion generally describe a 60- to 90-per cent salvage rate for surgery done less than 24 hours after the onset of pain, and less than 20 per cent if surgery is delayed more than 24 hours. It often is difficult to distinguish testicular torsion from acute epididymitis in the emergency room; thus, the differentiation between these two conditions has continued to be the most useful application of testicular scanning.

Testicular scanning was first performed at Memorial Division, Charleston Area Medical Center in June, 1977. Almost all scans have been to differentiate inflammation from torsion. The initial scans were performed with the patient sitting, the thighs abducted, and the imaging camera below the scrotum. The use of a pinhole collimator precluded angiographic imaging. Both radiologists and clinicians felt that the scans were not easily interpreted nor reliable.

In August, 1978, a new gamma camera (Searle) was obtained that greatly improved resolution. In addition, a converging collimator was employed which provided an enlarged image. The camera is now placed above the supine patient, the penis taped to the abdomen, and the scrotum suspended above the thighs. A bolus injection of 15 mc of Na99mTc04 is followed by an angiographic flow study consisting of 16 consecutive four-second images, starting when the radioisotope is first seen in the iliac arteries. Static images are obtained at approximately two minutes (one million counts) with marking of the left and then the right testicle. A lead shield is placed beneath the scrotum before the static images are obtained to decrease background radiation from the thighs. In published studies no diagnostic difference was discernible between "blood pool" images obtained after the angiographic phase and "tissue phase" images at three to five minutes.

Normal Testicular Scan

The normal testicular scan shows symmetrical uptake in the testicles which equal the thigh in radioactivity (Table 1). The spermatic cord

is slightly more intense, and activity can be seen in the prostate in older men and in the glans penis in younger men. The bladder is seen later after excretion of the isotope. (Normals originally were established in patients undergoing brain scans.).

In case of epididymitis, definition of the testicular, deferential, and pudendal arteries is usually seen in the radionuclide angiogram. Increased activity in the static images is seen either laterally with epididymitis or more diffusely with epididymo-orchitis.

With testicular torsion, perfusion on the angiogram is slightly decreased or normal — often less than on the normal side. Static images reveal a rounded, cold area representing the avascular testicle.

Figure 1. A 28-year-old male with left epididymitis. The scan shows diffusely increased uptake in the left hemiscrotum. (The marker is on the left testicle.)

Figure 2. A 14-year-old male with left testicular torsion. The scan shows a discreet area of decreased uptake representing the avascular left testicle.

A "missed torsion" that presents after three to four days of symptoms has an angiogram that is barely or non-perceptible, but a variable degree of hyperemia is seen surrounding the cold testicle. (This hyperemia is described as not as intense or laterally localized as with epididymitis.)

A scrotal abscess presents with an intense angiographic definition of vessels and a static image showing areas of hyperemia but a cool area representing the abscess. The abscess is described as a "cool" area in distinction from the "cold" area of the torsed testicle.

Figure 3. A 19-year-old male with left epididymo-orchitis and an abscess in the left testicle. The scan shows the "cool" area of the abscess and surrounding hyperemia represented by the increased radioisotope about the abscess.

TABLE 1

Condition	*Perfusion on Radionuclide Angiogram*	*Static Image*
normal	ill-defined, barely perceptible symmetrical activity	symmetrical sac, testicular intensity similar to thigh
acute torsion	↓ or N	testicle represented by round, cold area
epididymitis	↑	epididymis hot
missed torsion	N	variable hyperemia surrounding round, cold area; later, testicle and hemiscrotum smaller
abscess	↑	abscess cool, but can be obscured by hyperemia of epididymis

TABLE 2
Testicular Scanning at Memorial Division, Charleston Area Medical Center
August, 1978-February, 1979

Condition	*Temp.*		*WBC*		*UA; WBC/HPF*	
	<38°/>38°		<10,800/>10,800		<6/>5	
torsion (6)	4	2	4	2	6	0
inflammation (10)	5	5	3	7	4	6

16 Testicular Scans

Sixteen testicular scans were performed at Memorial Division, Charleston Area Medical Center from August, 1978, through February, 1979 (Table 2). Six of these patients had a final diagnosis of testicular torsion. All were surgically explored. Orchiectomy was performed in three cases, and the testicle was salvaged in the remaining three. One of these salvaged testes appeared grossly normal at surgery, but an open biopsy yielded a pathological diagnosis of ischemic necrosis.

There were 10 cases of inflammation. Two of these underwent surgery: one for chronic epididymitis and one for testicular abscess. The remaining eight all responded to antibiotics and local measures. Four of these had a normal testicle at office follow-up two to three months later, and four others were lost to follow-up.

Analysis of the clinical and laboratory data showed that two of six patients with torsion and five of ten patients with inflammation had a temperature above 38° C. either at admission or within the first 24 hours in the hospital (Table 2). Also, two of six patients with torsion had a WBC over 11,000 (one of which also had a fever), and seven of ten patients with inflammation had an elevated WBC.

All of the torsion patients had less than six WBC/HPC on urinalysis, and six of ten patients with inflammation had greater than five WBC/HPF on urinalysis. (Forty-two per cent of patients with epididymitis in another reported series had normal urinalyses.) Urine cultures were obtained for 11 patients. Ten (four torsion, six epididymitis) were negative. One was positive with greater than 100,000 Enterobacter Cloacae in an alcoholic with epididymitis and urinary retention.

The clinical diagnosis (Table 3) in six cases of torsion was correct in two cases, incorrect in two (inflammation, tumor vs. inflammation) and equivocal in the remaining two (inflammation vs. torsion in both). The clinical diagnosis was considered equivocal if more than one diagnosis was given at the end of the admission work-up, and no clear indication was given as to the primary or favored diagnosis. The radioisotope scan was correct in all six cases. The absence of false negatives indicates a high degree of sensitivity in detecting testicular torsion.

Inflammation Diagnoses

Seven of ten cases of inflammation (epididymitis, epididymo-orchitis, or abscess) had a correct clinical diagnosis, and three had an equivocal clinical diagnosis (inflammation vs. torsion in two and inflammation vs. tumor in one). The scan diagnosis was correct in eight cases; two cases were misdiagnosed as torsion. One of these false positive torsions, when reviewed (by myself and a staff radiologist), was felt to have been an incorrect initial interpretation of a somewhat equivocal inflammatory scan.

The second false positive was a necrotic abscess of the testicle with advanced epididymo-orchitis. The abscess showed as a cold or "cool" spot on the static images. The angiogram, which should have shown increased activity in the testicular and pudendal arteries, was of no diagnostic assistance.

In conclusion, testicular scanning is a sensitive test to detect testicular torsion when performed with adequate technology. The difficulties in interpretation in this series were between torsion of several days' duration and abscess; both present with an area of decreased activity surrounded by increased activity. Theoretically, these should be distinguishable with the previously-stated differences on the angiogram and the static images, but in actuality the difference

TABLE 3

Condition	*Final Dx.*	*Clinical Dx.*			*Scan Dx.*	
		correct	equivocal	incorrect	correct	incorrect
torsion	6	2	2	2	6	0
inflammation	10	7	3	0	8	2

often is not apparent on the scan. The differentiation of testicular torsion from an abscess is somewhat academic in that both require surgical intervention.

It should be emphasized that testicular scanning should not delay surgical correction of an obviously torsed testicle, but many presentations of scrotal pain and swelling are not readily diagnosed when first seen in the emergency room. It is these patients, in addition to patients with other primary diagnoses (e.g., epididymitis) for whom torsion cannot be ruled out, who benefit from a scan. In these cases, the radionuclide testicular scan has proved reliable in ruling out acute torsion and allowing those patients with nonsurgical illness to be followed and treated with more certainty.

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Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

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Kawasaki Disease: A Case Presentation And Review Of Literature*

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Mucocutaneous Lymph Node syndrome (MLNS) is increasing in occurrence, and possibly recognition, in the United States. It also is a reportable disease to the Center for Disease Control. An important barrier to the early recognition of MLNS is its being a clinical diagnosis. Distinct patterns and characteristics of its involvement eventually may be observed as more and more cases are reported.

*This paper presents a case seen in Charleston, West Virginia.** The patient met the required clinical criteria and course for the disease.*

KAWASAKI Disease, or Mucocutaneous Lymph Node syndrome (MLNS), was once thought to be seen in individuals primarily of oriental ancestry. The disease was first reported by Kawasaki *et al.* in 1967. During the following six years over 7,000 cases were reported in Japan. The first case in the United States was reported in 1972. By 1978, there were several hundred cases reported in 31 states and the United States' possessions.[1,3,6,9,10,11]

Case Presentation

On December 17, 1979, a three-year-old, white male was seen in the office upon referral from his family physician. He appeared septic with positive meningeal signs and was sent to the emergency room for a lumbar puncture and other lab tests. The patient began to complain of pain in the right side of his neck and developed marked swelling in the region of the pain. After the tests were performed, he was found to have a large and tender right cervical mass. He was admitted to the hospital with the diagnosis of sepsis and acute lymphadenitis.

The patient's family reported he had good health until three days prior to the office visit when he experienced gradual onset of nausea, vomiting and low-grade fever. No further problems were noticed until the morning of admission, at which time the patient was noted to be lethargic and irritable with a high fever. Past medical history revealed normal growth and development with no previous serious illnesses or surgery.

Physical examination on admission revealed the patient to be lethargic and somewhat irritable, apparently in acute distress. Vital signs included pulse of 120, respirations of 26 and a temperature of 38.8°C. The tympanic membrances were slightly hyperemic with some middle ear fluid bilaterally. There was a 5x5x3-cm. tender mass below the right ear. The rest of the physical examination was unremarkable except for mild nuchal rigidity and positive meningeal signs.

Laboratory Data. The white blood cell count was 22,700 with a differential of 91 Polys, six lymphocytes and one stab. CSF examination was clear with no WBCs or RBCs; protein was 100 mg/dl; and glucose was 74 mg/dl with serum glucose of 131 mg/dl. The SMAC/6 was within normal limits. Blood, urine and throat cultures were obtained.

Hospital Course. The patient was started on ampicillin 600mg IV q six hours and aspirin two and one-half grams q six hours for fever.

A spiking temperature curve was observed (peak temperature 39.7°) although his neck lesion decreased in size. On the third day following admission, a small erythema multiforme-like rash was noted on his lower abdomen. This rash also was noticed in the axillary regions and over the right cervical mass the next day. Initially, the rash was thought to be secondary to ampicillin, which was discontinued. Because of itching, the patient was treated with Benadryl. The patient was not improving clinically and, because of the possibility of bacterial sepsis, he was placed on Keflin 300 mg. IV q six hours. The spiking fever continued and, on the sixth hospital day, bilateral ocular conjunctivitis, edematous hands and fissured lips were noted. At that time, the patient complained of right upper quadrant pain and arthralgia.

The patient's WBC remained elevated throughout the entire period. The platelet count was

*Authors' Note: Since this paper was written, expert physicians now generally agree that the preferred term is *Kawasaki syndrome.*

**Charleston Area Medical Center-Memorial Division.

1,190,000 on December 29, 1979. ESR ranged from 18-60. ASO titer, RA factor and ANA testing were negative. All cultures were negative. A moderate normochromic-normocytic anemia was noted on day eight with Hg of 10.5 and Hct of 31.0 (normal Hg 13.0 ± 0.58, normal Hct 38.0 ± 2.0 at three years of age).[2] A chest x-ray was normal. Sterile pyuria was noted on a few occasions.

The patient became afebrile on December 28, 1978, the 12th day of hospitalization and the 15th day of clinical disease. The conjunctivitis, edematous hands and fissuring of lips, as well as the rash and the lymphadenopathy, had improved. The patient was discharged without medications.

Follow-up Examinations. The patient was seen in the office at weekly intervals for four weeks. He continued to have joint pains for approximately two weeks with a noticeable increase in the size of his knee joints. A membranous desquamation of his fingers was noticed on January 7, 1980, and his ESR rose to 75. The patient was started on aspirin, two and one-half grams q six hours. The rash had disappeared by January 22, 1980, and was present for a total of 35 days. A follow-up SGOT was 38 U/L (0-41 U/L normal), and LDH was 355 U/L (60-200 U/L normal). The membranous desquamation had improved by January 22, 1980, and had cleared one week later. An electrocardiogram on January 21, 1980, was normal. A CBC on that day showed WBC of 9,600 (57 Polys, 33 lymphocytes, six monocytes and three eosinophils; ESR was 40). EKGs, chest films and bidimensional echocardiogram remained normal throughout the entire course. The clinical and laboratory findings became normal after three months and stayed normal on follow-up at six months from onset of disease.

Since the disease has become more noticeable in the United States, it may be helpful to review the presentation of the disease (as noted above), the criteria for diagnosis, and the epidemiology to help with identifying new cases.

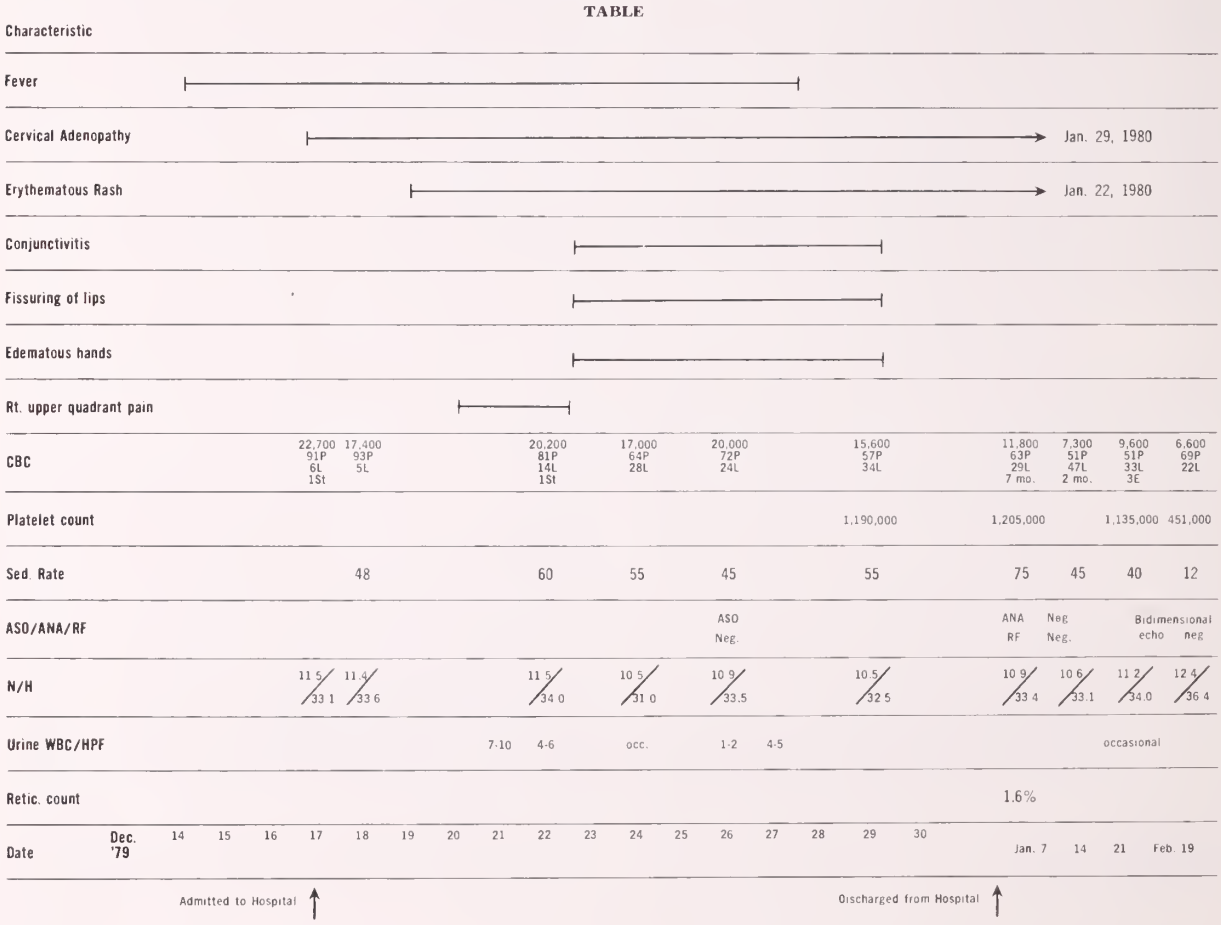
Diagnosis

Five or more of the following criteria must be met for a diagnosis of Mucocutaneous Lymph Node syndrome (Kawasaki Diease):

(1) fever of five or more days, nonresponsive to therapy (mean of 11.8 days and range of five-39 days)

(2) bilateral conjunctival infection

TABLE



(3) changes in lips and oral cavity
   a. dryness, redness and/or fissuring of lips
   b. strawberry tongue
   c. erythema of oropharyngeal mucosa
(4) changes in the extremities
   a. erythema of palms and soles
   b. indurative edema of hands and feet
   c. membranous desquamation from fingertips
(5) polymorphous exanthem (erythema multiforme-like) without vesicles or crusts
(6) an acute, nonpurulent swelling of cervical lymph nodes (unilateral about 60 per cent of cases)[1,5,10]

Many other findings seen with MLNS include electrocardiographic changes (including increased PR interval, increased ST interval and decreased size of R wave with flat T waves); diarrhea; proteinuria; sterile pyuria; leukocytosis with a shift to the left; slight anemia; elevated sedimentation rate and C-reactive protein; negative ASO titer; arthralgias/arthritis; aseptic meningitis; mild jaundice; thrombocytosis, and a transverse furrow in the nails one to two months post-onset.[2,4,7,16]

Epidemiology

MLNS is uncommon in children over eight years of age, with an age range of three months to 12 years, and a peak incidence at three years in the United States compared to 18 months in Japan. Over 80 per cent of cases were less than three years in the United States. There has been identified a male to female ratio of 1.5:1.0.[7] There is a slight increase in frequency of occurrence in the summer months from May to July. No geographical patterns and no familial occurrence have as yet been reported.

In the United States, 57 per cent of positively identified cases were Caucasians, 18 per cent were black, and 25 per cent were of oriental ancestry. Adjusted rates of yearly occurrence for the United States were 2.74/100,000 oriental children less than eight years old; 1.03/100,000 black children less than eight, and 0.13/100,000 Caucasian children less than eight.

Recently, MLNS was found to be associated with the HLA antigen Bw22. This antigen has been found to be more common in Orientals as compared to Caucasians and Blacks.[3,7,9] MLNS has been more common in infants artificially fed during infancy when compared to those who were breast fed.

The case fatality rate for MLNS has been reported to be one to two per cent.[8,12] Fifty per cent or more of the deaths occurred within the first month after the acute episode. Seventy-five per cent or more occurred within two months, and 95 per cent occurred within six months. Deaths were reported up to 10 years after the acute episode.[3,7,9]

Almost all reported deaths have been secondary to cardiac involvement.[13,14] Involvement of the coronary arteries was present in 90 per cent of patients with sudden death from coronary thrombosis in the one to two per cent total deaths. Deaths were more common in the younger children. Abnormalities of the coronary arteries involved include aneurysm and/or dilatation (60 per cent), stenosis, irregularity of the arterial walls and tortuosity of the arteries. Brachial, iliac and aortic aneurysms and stenosis of retinal and small cerebral arteries also have been reported.[2,12,17] Aneurysms preferentially involve the main coronary arteries and were never observed at a distance of more than 10 mm. distal from the coronary ostium.[12] Almost all reported cases of MLNS have had electrocardiographic abnormalities with or without cardiac enlargement in the active stage of the disease process.

The disease itself is thought to be self-limited with clinical improvement beginning at approximately 14 days from onset.

Etiology and Treatment

No bacterial, fungal, viral, genetic or environmental factors have been identified as the etiologic agent in MLNS. Some support the theory that MLNS is a collagen disease. Hamashima *et al.*, in 1973, performed electron microscopic examinations on specimens from patients with MLNS and reportedly found rickettsia-like bodies in the cytoplasm of macrophages and in endothelial cells of arterioles.[5] However, several later studies did not substantiate these findings. Interestingly, two children in New York had had contact with unwashed clothes from Japan, Hong Kong and Taiwan.[7]

The only definitive treatment for MLNS is symptomatic. An additional treatment may be high-dose aspirin therapy using 100 mg/kg/day.[1] Further in-depth studies are being conducted to determine the therapeutic efficacy of aspirin. Steroids probably are not useful in MLNS.

Differential Diagnosis

The differential diagnosis includes scarlet fever, Stevens-Johnson syndrome, systemic lupus

erythematous, juvenile rheumatoid arthritis, Rocky Mountain Spotted Fever, viral syndrome, and Infantile Polyarteritis Nodosa (IPN).[2] Each of the diagnoses can be differentiated clinically from MLNS except IPN. MLNS and IPN may be clinically indistinguishable. Some researchers feel IPN may be the fatal form of MLNS, but so far this theory remains unresolved. However, it is interesting to note that IPN was not prevelant in Japan prior to the 1960s, and that is when MLNS was first noted.

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114th ANNUAL MEETING

of the

West Virginia State Medical Association

The Greenbrier

AUGUST 20-22, 1981

PLAN NOW TO ATTEND

A message from . . .

The President

THE CHARGE

I recently had the high honor of addressing the first graduates of Marshall University's School of Medicine. The following represents excerpts from my remarks. They apply to all of us in Medicine.

Another term for graduation could be transition . . . transition from one of guidance in your learning to dependence on your own learning skills . . . transition from a scheduled life to one of the most unscheduled professions . . . transition from science to an amalgamation of science and art . . . transition to a life of challenges.

Learning is a never-ending requirement in our profession. Be the first to try the new, but not the first to cast the old aside. It is by daring new approaches that progress is made. But the old was the new of yesterday.

Long hours are spent accumulating didactic data which the mental computer will use to diagnose and treat — but never forget that sickness is 60 per cent emotional. Because of today's skills and techniques, we might cure a patient so rapidly that we spend little time with the patient or with the family. A caring concern, however, is the art of Medicine.

The new graduate enters a sea of rocks and shoals. Keep alert to this situation. One's ego should never become so great that you think you can't err. We all err, a fact we must recognize and accept.

Keep your ethical standards so high that your mind will be free of guilt. And diversify your interests enough to assure outlets for your frustrations.

Whether a physician's life is spent in clinical practice or research, some time should be set aside to teach. Also, spend some time in activities of your medical societies and associations. The broad challenges of patient care, management, education and economics are addressed by these groups — but they properly can be addressed only by a consensus of the majority.

Medicine is the one profession constantly striving to put itself out of business. The profession you enter is the most rewarding of all, for by your skill, caring and devotion people are restored to better health. Respect it, and treat it well. Go forth, do good work and enjoy the true pleasure of making the sick well.

L. Walter Fix M.D.

L. Walter Fix, M. D., *President*

The West Virginia Medical Journal

Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

At least once a year — and it's a pity that this doesn't occur more often — the Medical Association's State Office has an opportunity to visit with a medical school class.

THE REAL GOAL

The stated purpose is to outline the framework of Organized Medicine at the local, state and national level, and to explain educational and other activities within that framework.

Such an assignment necessitates some review and preparation, including another look at the West Virginia State Medical Association's purposes as set forth in its Constitution.

Many of you know at least some of these goals: to extend medical knowledge and advance medical science; to promote the public health; to elevate the standards of medical education; to secure the enactment and enforcement of just medical laws; and to help the medical profession become more useful to the public "in the prevention and cure of disease, and in prolonging life and adding comfort thereto."

What does all this really mean? What is the *real* objective of Organized Medicine, so often labeled as just another powerful, self-centered and special interest group?

The real meaning came through with new clarity as various questions came from the students in a recent classroom discussion.

There actually is little, if anything, in Organized Medicine's work and efforts that does not have as its objective *better medical care for everyone.*

That's the real purpose behind all medical education programs, and making these programs as strong and problem-related as possible.

That's why ever-increasing attention must be devoted to legislative activities at both state and federal levels.

That's the real reason why work with various governmental units in the executive branch — and with other health care providers and organizations — must be broadened.

That's the justification for a variety of additional Organized Medicine activities, carried out by the likes of state medical associations, such as endorsed professional liability insurance-risk management programs and publication of good medical journals.

Is Organized Medicine a special interest group? Yes, it falls into that generally defined category. But it is a group that tries to assure all the best for its physician members for one overriding purpose that goes far beyond the general welfare of doctors themselves.

The ultimate objective is more accessible, and better, care for those who need the services of physicians. This means constant promotion of the public health and welfare, both in treatment and prevention of disease.

Even those who work daily with the many challenges the current state of society can produce tend — perhaps too often — to forget this ultimate goal.

Perhaps it is only fitting that a discussion with eager young medical students has served, on at least one occasion, to bring that real justification for Organized Medicine back into focus.

EFFECTIVE CME

Out in the Chicago area, there is an Illinois Council on Continuing Medical Education — a non-profit, tax-exempt organization established in 1972 to combine the CME perspectives of the Illinois State Medical Society and the state's eight medical schools.

Its central mission, through workshops it has developed, is to "teach the teacher" by providing educational support and learning opportunities on effective CME methods to physicians and others responsible for CME planning.

More information as to the services actually available, and the cost, can be obtained by any interested hospital administration and/or medical staff, or others, from the West Virginia State Medical Association's Headquarters Office in Charleston.

But this isn't intended to be a promotional piece. Instead, we feel that some of the philosophy generated by the Illinois organization over the years, and practical approaches it has developed toward CME, deserve notice here.

The group's experience has found three chronic problems among in-hospital CME programs, and we're certain they exist in West Virginia. First, not every patient receives the full quality of care that modern biomedical science and contemporary physicians can provide. Second, the *kind* of CME most often offered fails all too often to change physician performance. And third, there is the constant observation that "those who need CME the most never attend."

The Illinois council suggests a three-part approach to these kind of problems, beginning with a "basic treatment plan" including systematic review of patient care to identify *real* learning needs; learning experiences that fit these specific needs, and follow-up procedures to check learning achieved as well as to pinpoint new learning methods.

The second part deals with wise use of that treatment plan — something the council has found requires clear understanding of three fundamental facts about physician learning:

—Sophisticated professionals like physicians learn best when they are fully involved in all aspects of planning their own continuing education.

—Physicians learn best with non-threatening methods, among their peers and in the medical setting of hospital or clinic.

—The learning problem or problems must be correctly identified; e.g., skill in working with colleagues; care with routines of diagnosis and treatment, and efficient organization of resources (including the doctor's own time) are often more important than new biomedical facts.

The third element is leadership. A hospital can have a CME program that achieves results if medical leadership fully involves staff in defining real learning problems; selecting effective learning methods; evaluating learning outcomes, and continuing the cycle as new learning needs emerge.

For clinical problems, individual physicians routinely share responsibility by referral to other specialists. The Illinois council insists that for CME, "this rarely works; you can't just dump the CME problem on a program chairman or even a director of medical education. What does work is shared responsibility."

Does all of what the Illinois council says always work? No, but it does most of the time. On the negative side, and some West Virginia physicians probably have witnessed this, the council pointed to one hospital with little interest in CME in which a "sparkplug" organized a CME committee and arranged a workshop to stimulate committee members' interest. The net result — the committee disbanded.

Maybe all of the above points have been made before. Perhaps some of them have been recognized by those West Virginia hospitals and medical staffs with real interest in the right kind of CME. But with continuing pressures for more effective educational programs, a frequent looking back and a review of what is or is not being done not only can be helpful—it's downright necessary.

The following is a portion of an editorial from the March, 1981, issue of *The Western Journal of Medicine*. It's at least thought-provoking, whether one is or is not inclined to accept the premise it advances.

CUSTOMER SATISFACTION

"There are some disturbing parallels between what has happened to the automobile industry in America and what might be happening in Medicine. For years, the American automobile industry held world leadership in automotive manufacturing, design and engineering innovation, and built high-quality, popular cars. And for years American medicine has led the world in the sophistication and excellence of the health care it renders."

"But it is clear that our once pacesetting automobile industry has fallen behind. Its leadership is no longer unquestioned and its competitive position in the marketplace has been seriously compromised. Its customers are going elsewhere in disturbing numbers. . . .

"Like the customers of automobile manufacturers, patients are seeking a product that will satisfy their needs as they see them. Too many of them are beginning to look elsewhere than to Medicine, as it is customarily practiced today, to answer their needs, particularly their need to feel better. This is happening at a time when the competition for these *customers* is likely to be increasing. . . .

"Perhaps there is a lesson for Medicine from what has occurred in the automobile industry. The lesson may be that it is time for both the medical profession's leadership and those who provide care to give more attention to what is involved in *customer* satisfaction if they are to retain leadership or even to survive in the increasingly competitive world of health care."

GENERAL NEWS

State Health Director To Give Convention Keynote Talk

The Director of the West Virginia State Department of Health will be the keynote speaker for the 114th Annual Meeting of the State Medical Association August 20-22 at the Greenbrier in White Sulphur Springs.

Dr. L. Clark Hansbarger will deliver the Thomas L. Harris Address at 9 A. M. opening exercises on Friday, August 21. The annual address was established with a bequest in the will of the late Dr. Thomas L. Harris, Parkersburg surgeon who served as President of the Association in 1945.

Doctor Hansbarger, a McDowell County native, was appointed State Health Director last January by Governor John D. Rockefeller IV. He has had extensive experience in the rural health field, having served as Medical Director of Family Practice of the Monroe Health Center in Union for three years.

Doctor Hansbarger graduated from high school in Welch, received his undergraduate degree from Duke University and his graduate degree from the Medical College of Virginia. He served in the United States Navy for six years, and was the Head of the Pediatric Division of the Navy Hospital in Portsmouth, New Hampshire, and the Head of Newborn Service at the National Naval Medical Center in Bethesda, Maryland.

The Health Director has taught pediatrics at Georgetown University and Howard University, and also taught at Case Western Reserve University School of Medicine.

Pediatric Director

While in Cleveland he served as Director of Ambulatory Pediatrics at Cleveland Metropolitan General Hospital, and as Medical Director of the Pediatric Nurse Clinician Program of the Cleveland Health Department.

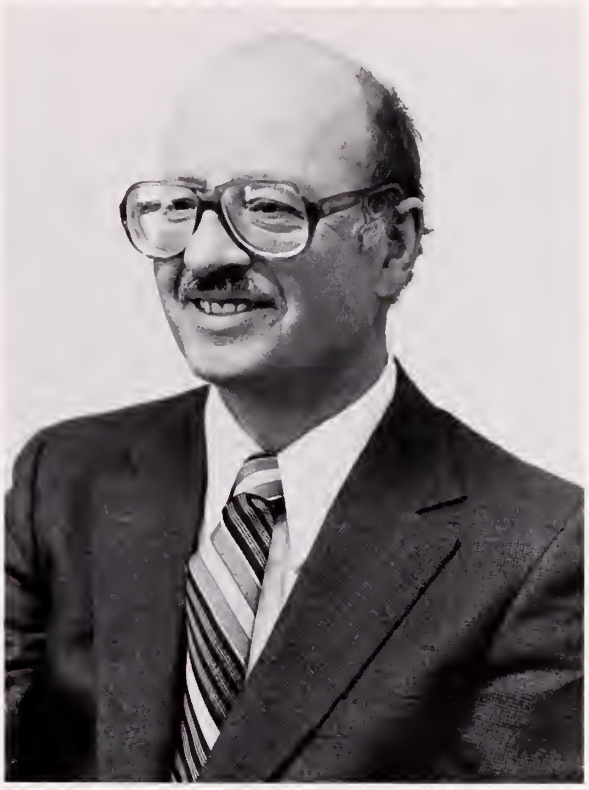
Doctor Hansbarger is a member of the West Virginia Chapter, American Academy of Pediatrics; West Virginia Health Systems Agency, and the American Association for the Care of Children in Hospitals.

The pre-convention meeting of the Association's Council and the first session of the House of Delegates, as announced previously, will be held on Thursday (August 20) instead of on Wednesday as has been the case in recent years. This schedule change is the result of action by the House last August to shorten the 1981 Annual Meeting by one day.

Daniel T. Cloud, M. D., who will be installed as President of the American Medical Association in Chicago this month, will address the first House session Thursday afternoon. Doctor Cloud is a pediatric surgeon from Phoenix, Arizona.

The number of general scientific sessions has been reduced from three to two, and will be held on Friday and Saturday mornings with elimination of the previous Thursday morning scientific session.

The opening exercises will precede the Friday morning scientific program.



L. Clark Hansbarger, M. D.

Speaker on Impotence

Dr. William L. Furlow of Rochester, Minnesota, as announced previously, will be the lead speaker for the first scientific session Friday morning. Doctor Furlow, Consultant in the Department of Urology at the Mayo Clinic in Rochester, and Professor of Urology, Mayo Medical School, will speak on "Impotence with Regards to the Etiology, Diagnosis and Treatment."

He also will address the Association's Section on Urology at 2 P. M. on Friday. His topic will be "Urinary Incontinence with Regards to the Artificial Sphincter."

Two of the speakers, and their topics, for the Saturday morning scientific session, also as announced, will be: "Effect of Environmental Factors on Epidemiology and Treatment of Bone Tumors" — Rudolf K. Lemperg, M. D., Professor of Orthopedic Surgery, West Virginia University Medical Center, Morgantown; and "Why Can't People Get Things Straight?" — Leonard M. Davis, Ph.D., Professor of Speech and Professor of Speech Pathology and Audiology in the Department of Speech Communication, WVU, Morgantown.

The Friday and Saturday morning scientific sessions also will include papers on the subjects of the handicapped, rehabilitation and malpractice.

Various other scientific sections and societies again will hold breakfast and other scientific meetings on Friday and Saturday, and the House will meet for the second and final time on Saturday afternoon.

To Inaugurate Doctor Markey

The Saturday evening reception for new officers will be held as usual following the second House session. At that session, Dr. John B. Markey of Charleston will be inaugurated as President to succeed Dr. L. Walter Fix of Martinsburg.

Members of the 1981 Program Committee are Dr. T. Keith Edwards of Bluefield, Chairman; Doctor Markey; and Drs. Stanley J. Kandzari of Morgantown, Ruth C. Harris of Huntington, Jerome C. Arnett, Jr., of Elkins and Harvey D. Reisenweber of Martinsburg.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. Gary G. (Ruth) Gilbert of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's convention.

Further program information, including additional scientific topics and speakers, will be provided in the July and August issues of *The Journal*.

Greenbrier Reservations Due By July 5

Reservations for the 114th Annual Meeting of the West Virginia State Medical Association should be made with the Greenbrier no later than Sunday, July 5, in order to comply with the hotel's requirement that all reservations must be received no later than 45 days prior to the meeting. Reservation forms provided by the Greenbrier have been distributed to all Association members. Any physicians who need additional forms should write or call the Association's headquarters office in Charleston.

WVU Graduates' Residency Selections Announced

Fifty-four per cent of this year's 85 fourth-year students in the West Virginia University School of Medicine will take their residency training in internal medicine, family practice or pediatrics.

Of the 46 who have elected to take postgraduate training in these primary care specialties, 25 chose internal medicine, 11 family practice and nine pediatrics. One graduate will combine a residency in internal medicine with one in behavioral medicine and psychiatry.

He was among the 39 remaining in West Virginia following graduation on May 17, and will enter his residency at University Hospital on July 1 along with 16 of his classmates.

Eighteen have chosen postgraduate training at the Charleston Area Medical Center; three will enter the program at the Kanawha Valley Family Practice Center and one will take a surgery residency at Marshall University affiliated hospitals.

The trend toward primary care specialties also is reflected by 21 of those remaining in the state, with 10 choosing internal medicine, five pediatrics and six family practice.

Other residency choices among all graduating students are: surgery, 13; anesthesia, 7; psychiatry, 6; pathology, orthopedic surgery and radiology, 3 each; obstetrics-gynecology, 2, and flexible, 2.

Members of the class of 1981, their hometowns and destinations are: Candace A. Adkins,

Summersville, Charleston Area Medical Center (CAMC); James A. Arnett, Clarksburg, WVU Department of Family Practice; John C. Baker, Charleston, CAMC; Robert Ball, Jr., Williamson, WVU Department of Surgery; Frederick W. Barker, Independence, Bridgeport (Connecticut) Hospital; Barry V. Barrows, Vienna, WVU Department of Family Practice; Marc C. Bloom, Charleston, CAMC; Frederick C. Blum, Triadelphia, WVU Department of Pediatrics;

Susan E. Bonfili, Morgantown, William Shands Teaching Hospital, University of Florida, Gainesville; Robert A. Camele, Fairmont, Mercy Hospital, Pittsburgh; Suzanne B. Canning, Morgantown, Cambridge (Massachusetts) Hospital; Lloyd G. Cantley, Charleston, North Carolina Memorial Hospital, Chapel Hill; William G. Castro, Wheeling, Allegheny General Hospital, and Ronald G. Cercone, Follansbee, Mercy Hospital, Pittsburgh;

Warren L. Cooper, Ravenswood, and Michael D. Crawford, Charleston, CAMC; Thomas W. Croghan, Clarksburg, Johns Hopkins University Hospitals, Baltimore; Hugh H. Culton, Morgantown, Michigan State University Associated Hospitals, East Lansing; Paul D. Davis, Salem, Tripler Army Medical Center, Hawaii; Susan C. Davis, Beckley, University of Alabama Medical Center, Birmingham; Philip W. Day, Huntington, Cincinnati (Ohio) General Hospital; Richard L. Del Checcolo, Huntington, CAMC; Richard E. Del Grande, Charleston, Mercy Hospital, Pittsburgh;

John T. Dorsey III, Wheeling, Naval Regional Medical Center, Portsmouth, Virginia; Peter E. Dross, Huntington, Mercy Hospital, Pittsburgh; Kenneth R. Dunbar, Parkersburg, Medical College of Ohio, Toledo; Brian Egan, Reader, Franklin Square Hospital, Baltimore; Linda A. Eskew and Vaughn M. Eskew, Ohio State University, Columbus; Joseph H. Farris II, Charleston, CAMC; Leo M. Fedder, Leechburg, Pennsylvania, WVU Department of Pediatrics; Paul F. Flink, Morgantown, Indiana University Medical Center, Indianapolis;

James N. Frame, Charleston, CAMC; Mark G. Fuller, Morgantown, WVU Department of Psychiatry; Roberta E. Galford, Weston, CAMC; Adam F. Gall, Jr., Charleston, CAMC; Lynne C. Gehr, Parkersburg, and Todd W. Gehr, Bridgeport, Upstate Medical Center, Syracuse, New York; James P. Gillen, Geisinger Medical Center, Danville, Pennsylvania; James D. Haddox, Logan, WVU Departments of Medicine and Behavioral Medicine and Psychiatry;

Roy A. Hepner, Ona, Fitzsimons Army Hospital, Denver, Colorado; Thoms J. Holbrook, Jr., Huntington, Vanderbilt University, Nashville, Tennessee; Michael C. Hyre, Pittsburgh, Presbyterian-St. Luke's Hospital, Oak Lawn, Illinois; Gregory A. Imperi, Huntington, William Shands Hospital, Gainesville, Florida; Samuel A. Januszkiewicz, Huntington, CAMC; Stephen N. Kissinger, Charleston, CAMC;

Deborah D. Knapp, South Charleston, WVU Department of Pediatrics; Dennis R. Knapp, Jr.,

New officers of the West Virginia Chapter, American Academy of Family Physicians were elected during the recent 29th Scientific Assembly of the Chapter in Charleston. Some of the new officers, shown above, are, from left, Drs. Robert D. Hess, Clarksburg, President Elect; A. Paul Brooks, Jr., Parkersburg, Vice President; John L. Fullmer, Morgantown, Chairman of the Board; William H. Harriman, Jr., Terra Alta, Secretary; Charles E. Basye, Fort Collins, Colorado (National Vice President, AAFP, who installed the officers); Joseph B. Reed, Buckhannon, Director; Thomas L. Ritz, Wheeling, President; Wilbur Z. Sine, Morgantown, Director; Thomas G. Wack, Jr., Wheeling, Director; I. M. Kruger, Virginia Beach, Virginia, Treasurer; and John V. Merrifield, Charleston, Director.

Nitro, WVU Department of Orthopedic Surgery; Jonathan P. Levelle, Fairmont, WVU Department of Anesthesiology; Carl W. Liebig, Keyser, WVU Department of Family Practice; Marianna B. Lindroth, Charleston, Kanawha Valley Family Practice Center; Kenneth G. MacDonald, Jr.,

(Continued On Page xxv)

Membership For Osteopaths Proposed By Amendments

Proposed amendments to the Medical Association's Constitution and By-Laws to open membership to doctors of osteopathic medicine, and to students enrolled in accredited schools of osteopathic medicine in West Virginia, were introduced into the House of Delegates during the Association's Annual Meeting in August, 1980.

Because a constitutional amendment must lie over for a year and be made known to the Association membership by publication or other methods, action on the matter will be an order of business at the first House of Delegates session August 20, 1981.

Here are the proposed amendments, with language changes which would result in the existing Constitution and By-Laws set out in italics:

PROPOSED
AMENDMENTS TO THE CONSTITUTION

(Originated by the Executive Committee and Council, April 13, 1980; To Be Acted Upon Finally at the First Session of the House of Delegates in 1981)

Amend Article IV, Section 2 and 5, to read as follows:

Section 2. Members: Membership in this Association shall be limited to doctors of medicine *and osteopathy* licensed to practice in West Virginia who are members of a component medical society of the West Virginia State Medical Association; and students enrolled in accredited schools of medicine *or osteopathic medicine* in West Virginia granting Doctor of Medicine or *Doctor of Osteopathy* degrees.

(Note: The purpose of this amendment is to permit doctors and students of osteopathic medicine to become members of the West Virginia State Medical Association.)

Section 5. Student members shall be those persons enrolled in accredited schools of medicine *or osteopathic medicine* in West Virginia granting Doctor of Medicine *or Doctor of Osteopathy* degrees who are qualified for membership under the By-Laws of this Association.

(Note: The purpose of this amendment is to permit students of osteopathic medicine to become members of the Student Section of this Association.)

PROPOSED
AMENDMENTS TO THE BY-LAWS

(Originated by the Executive Committee and Council, April 13, 1980)

Amend Chapter 1, Section 1, to read as follows:

Sec. 1. The name of a physician on the properly certified roster of members of a component society shall be prima facie evidence of membership in this Association, provided he has paid local and state dues and any current assessment, and provided further that he is licensed to practice medicine in West Virginia.

The membership shall also include, upon payment of state dues and any current assessment, a student enrolled and working toward a Doctor of Medicine *or Doctor of Osteopathy* degree, in any accredited school of medicine *or osteopathic* medicine in West Virginia; provided, further, that the academic status of each medical *or osteopathic* student applicant for membership shall be certified by the dean of his medical *or osteopathic* school.

(Note: The purpose of this amendment is to permit students of osteopathic medicine to become members of the Student Section of this Association.)

Amend Chapter I, Section 6, to read as follows:

Sec. 6. The active membership of this Association shall consist of those physicians or doctors of medicine *and doctors of osteopathy* who are actively engaged in the practice of medicine *or osteopathy*, who hold a degree of Doctor of Medicine, or Bachelor of Medicine, *or Doctor of Osteopathy*, who are licensed to practice medicine in the State of West Virginia, and who are members of one of the component societies in this Association.

The grant of a temporary permit to practice medicine by the *West Virginia Board of Medicine* or the *West Virginia Board of Osteopathy* shall entitle the holder of such temporary permit to full privileges of active membership in the State Medical Association during the period covering such temporary permit, provided such

permit holder has satisfied the requirements for membership in his component society. There shall be no remission of dues or assessments for any portion of any fiscal year not covered by the terms of a temporary permit to practice medicine in this State, or when said temporary permit has been revoked by competent authority during said fiscal year. The fiscal year shall begin on January 1 and end on December 31 each year.

The honorary membership of this Association shall consist of those physicians who have attained outstanding eminence in the medical profession; have been nominated for honorary membership by their component societies; and have been elected to such membership by a majority vote of the Council and the House of Delegates of the Association.

The retired membership of this Association shall consist of those physicians who have been active members, but have retired from professional activity. Nominations for this category shall be forwarded by the appropriate component societies to the executive secretary for submission to Council for election.

Honorary and retired members shall be exempt from the payment of dues or assessments. They shall have the privilege of the floor in any open session of the Association, but shall not have the right to make or second motions, to vote, or to hold any elective office in this Association, except that they may hold elective or appointive committee membership.

(The effect of this amendment is to broaden the active membership category to include doctors of osteopathy.)

Dr. James H. Nelson, Jr., right, of Charleston was presented the 1981 "Mr. Doc Award" for his contributions to the practice of medicine by the West Virginia Chapter, American Academy of Family Physicians, during the Chapter's annual meeting this spring in Charleston. Above, Dr. Thomas L. Ritz, Wheeling, who was installed as President during the meeting, presents the award, the Chapter's highest honor, to Doctor Nelson.

Statute Broadens Medication For Eyes of Newborn

For many years, state law has mandated the use of silver nitrate in the eyes of the newborn in control of communicable and other infectious diseases.

Recognizing medical progress over the years, a 1981 legislative act (Enrolled Senate Bill No. 189) broadened that statute.

Here is the new enactment, made effective from its final passage on April 11, as supported by the West Virginia Chapter, American Academy of Pediatrics, and others:

Be it enacted by the Legislature of West Virginia:

That sections ten and eleven, article three, chapter sixteen of the code of West Virginia, one thousand nine hundred thirty-one, as amended, be amended and reenacted to read as follows:

ARTICLE 3. PREVENTION AND CONTROL OF COMMUNICABLE, AND OTHER INFECTIOUS DISEASES.

§16-3-10. Inflammation of eyes of newborn — use of an appropriate medication as prophylactic; birth report.

"It shall be unlawful for any physician, nurse-midwife or midwife, practicing midwifery, or other health care professional to neglect or otherwise fail to instill or have instilled, immediately upon its birth, in the eyes of the newborn babe, the contents of a single-use tube of an ophthalmic ointment containing one percent tetracycline or one half of one percent erythromycin or the equivalent dosage of such medications or other appropriate medication approved by the director for prevention of inflammation of the eyes of the newborn. Every physician, nurse-midwife or midwife or other health care professional shall, in making a report of a birth, state the name of the appropriate medication which was instilled into the eyes of said infant. The director shall establish a list of appropriate medications for

prevention of inflammation of the eyes of the newborn. The list (which will include silver nitrate) shall be kept current and distributed to appropriate health care facilities and such other sources as the director may determine to be necessary.

§16-3-11. Same — Duty of clerk of county commission.

"It shall be the duty of the clerk of the county commission of each county, on or before the fifteenth day of each month, to certify to the prosecuting attorney of his county all reports of births filed during the preceding calendar month which fail to show that an appropriate medication for prevention of inflammation of the eyes of the newborn hereinbefore provided for was instilled."

Informed Consent Vital In Patient Care

(The matter of informed consent continues to demand all possible attention by the practitioner, and must be kept foremost in mind. The following material, designed to get key elements of the issue before physicians once more in a concise and understandable manner, was prepared by Staff Counsel Robert F. Bible of the West Virginia State Medical Association. If there are further questions, let's have them.—The Editor)

Informed consent is the legal doctrine which holds that "in the absence of an emergency that necessitates immediate medical action, and where the patient is competent and in possession of his facilities, a patient has a right to consent to a medical or surgical procedure to be performed by a "physician." This doctrine has been recognized in West Virginia since at least 1922. *Browning v. Hoffman*, 90 W. Va. 568, 111 S.E. 492 (1922).

Failure to obtain informed consent will make the physician liable without fault (negligence) for a bad result. This is true regardless of the risk of the procedure or the prognosis if the procedure is not performed. Obtaining informed consent is the physician's responsibility.

One authority has suggested that proper informed consent should include the following: "(1) the diagnosis, (2) the general nature of the contemplated procedure, (3) the risks involved, (4) the prospects of success, (5) the prognosis if the procedure is not performed and (6) alternative methods of treatment, if any." D. Louisell & H. Williams, Medical Malpractice ¶ 22.01 (1977).

The consent obtained is only as good as the physician's ability to prove that it was actually "informed." The explanation must be in terms that the patient understands. After going through the six steps outlined above, the physician should ask the patient if he/she wants more information. If the patient does not want further information, informed consent has been obtained. However, if the patient wishes more information, the physician should go into more detail until the patient is satisfied.

The preceding is the most conservative approach to obtaining informed consent. If *you* are not obtaining truly informed consent, you could be found liable for a bad result without any deviation from accepted standards of care.

Informed consent should *at least* be noted in the patient's record. If there is sufficient interest, this Association will develop and distribute a form for obtaining valid informed consent.

Doctor Ward Renamed

Stephen D. Ward, M. D., of Wheeling, Past President of the West Virginia State Medical Association, was reappointed to the American Medical Association's Council on Legislation in action taken by the AMA Board of Trustees at an April meeting in Chicago.

Mrs. Gary G. (Ruth) Gilbert, President of the West Virginia State Medical Association Auxiliary, recently presented the Marshall University School of Medicine a check for $5,136.20 as the school's appropriation from the American Medical Association's Education and Research Fund (AMA-ERF). Money for this fund comes from physician contributions and Auxiliary fund-raising activities. The funds, according to MU School of Medicine Dean Robert W. Coon, M. D., who accepted the check, will be used to support medical student research projects.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal).

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

June 5-6. Morgantown, Anesthesia Update '81

June 6. Charleston, 8th Wildwater Surgical Conference

June 11-13. Morgantown, Chondromalacia Symposium

Sept. 25-26. Morgantown. WV Chapter. Am. College of Surgeons

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, Upshur-Buckhannon Middle School. 3rd Thursday, 6:30-9:30 P. M.—June 18. "Asthma: Patient Self-Education." N. LeRoy Lapp, M. D., and Gail Zell Serdoz. R. N.

July (no program)

Cabin Creek, Cabin Creek Medical Center. Dawes, 2nd Wednesday, 8-10 A. M.—June 10, "Dealing with Emotional Problems in the Clinical Setting" (A special mental health training program. Speakers to be announced.)

July (no program)

Oak Hill, Oak Hill High School (Oyler Exit, N 19). 4th Tuesday. 7-9 P. M.—June 23. "Asthma: Patient Self-Education," N. LeRoy Lapp, M. D., and Gail Zell Serdoz, R. N.

July (no program)

Welch, Stevens Clinic Hospital. 9-11 A. M., June 17. "Allergy Update," Joseph T. Skaggs. M. D.

July 15. "Sexually-Transmitted Disease" (speaker to be announced)

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M.—June (no program)

July (no program)

Williamson, Williamson Junior High School, 1st Thursday. 6-8 P. M. — June 4. "Common Neonatal Problems" (speaker to be announced)

July (no program)

Doctor Andrews Resigns, Takes New Position At WVU

The resignation of Charles E. Andrews, M. D., as West Virginia University Vice-President for Health Sciences recently was announced.

Doctor Andrews has been a WVU medical faculty member for 20 years and the administrator in charge of the WVU Medical Center, which includes University Hospital, for the past 13 years.

He will return to full-time teaching, research and patient care in the Division of Pulmonary Diseases on July 1. He headed that division at the time he was appointed Provost for Health Sciences in 1967, a title later changed to Vice-President.

"I don't think any medical administrator at this level should serve longer than I have," Doctor Andrews said. "I have been planning to step down for at least two years."

WVU President Gene A. Budig said W. Robert Biddington, Dean of the School of Dentistry, would replace Doctor Andrews on an interim basis pending selection of a successor.

Doctor Budig praised Doctor Andrews as an outstanding administrator who has led the Medical Center to new heights in education, research and service to the people of West Virginia.

Former Association President Dies In Clarksburg

Sobisca S. Hall, M. D., of Clarksburg, President of the State Medical Association in 1952, died on April 26 in a hospital there following a brief illness. He was 81.

Doctor Hall, who practiced in several northern West Virginia communities and was in Clarksburg at the time of his retirement in 1969, also was clinical Professor of Otolaryngology at West Virginia University during 1968 and his last year of practice.

Sobisca S. Hall, M. D.

He was a member of the State Medical Association's Council in 1928-30, and was President of the Harrison County Medical Society in 1947.

The first otolaryngologist in West Virginia to perform an operation to restore hearing, the library of the WVU Division of Otolaryngology was named the Sobisca S. Hall Library. It consists of approximately 1,000 volumes as well as library journals and audio-visual aids.

A native of Horner, in Lewis County, Doctor Hall was graduated from WVU and received his M. D. degree in 1926 from Rush Medical College in Chicago.

Postgraduate Work

He completed postgraduate work in otolaryngology at New York Eye and Ear Hospital and the University of Pennsylvania Hospital. After practicing at Buckhannon for a short time, he was located at Fairmont for a few years before moving to Clarksburg.

Doctor Hall was an honorary member of the Harrison County Medical Society, West Virginia State Medical Association and American Medical Association, and was a Fellow of the American College of Surgeons, Diplomat of the American Board of Otolaryngology; Fellow of the American Academy of Otolaryngology; Fellow of the American Academy of Facial, Plastic and Reconstructive Surgery, Inc.; Fellow of the American Bronco-Esophagological Association; and Fellow of the West Virginia Academy of Ophthalmology and Otolaryngology, serving as the organization's President in 1948.

He had two tours of duty with the armed forces of the United States, serving as an assistant surgeon with the Navy in 1925 and with the Army in 1942-45. In 1945, he was awarded the Bronze Star for meritorious service and three campaign stars.

WVU Professor Emeritus

Doctor Hall was a retired member of the American Council of Otolaryngology, WVU Professor Emeritus of Surgery; Fellow of the Southeastern Surgical Congress; Diplomat Member of the Pan American Medical Association in the section of Ato-Rhino-Laryngology, and a regular member of the Pan Pacific Surgical Association.

Survivers include the widow; a son, Phillip W. Hall of New Smyrna Beach, Florida; three daughters, Mrs. Graham R. Lynch of Atlanta, Mrs. Noel A. Conley of Newburyport, Massachusetts, and Mrs. Gordon D. Shingleton, Gerrardstown, in Berkeley County; and one sister, Mrs. Ross Miles of Buckhannon.

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Basic Histology, 3rd Edition, by Luis C. Junqueira, M. D.; and Jose Carneiro, M. D. 504 pages. Price $15.50. Lange Medical Publications, Los Altos, California 94022. 1980.

Current Obstetric and Gynecologic Diagnosis and Treatment, 3rd Edition, by Ralph C. Benson, M. D. 1001 pages. Price $21. Lange Medical Publications, Los Altos, California 94022. 1980.

Communication and Compliance in a Hospital Setting, edited by David J. Withersty, M. D. 193 pages. Price $18.50. Charles C. Thomas, Springfield, Illinois. 1980.

Nutrition and Medical Practice, edited by Lewis A. Barness, M. D.; with Yank D. Coble, Jr., M. D.; Donald I. Macdonald, M. D.; and George Christakis, M. D., M.P.H. 408 pages. Price $19.50. AVI Publishing Company, Inc., Westport, Connecticut 06880. 1981.

AMA House Of Delegates Meets June 7-11

The 130th annual meeting of the American Medical Association will be held June 7-11 in Chicago.

The official call for the meeting was published in the April 10 Journal of the American Medical Association.

The 283 members of the AMA House of Delegates will meet in the Chicago Marriott Hotel for deliberations on which AMA policy is based.

Richard E. Flood, M. D.

Frank J. Holroyd, M. D.

The House of Delegates is composed of representatives from state medical associations, national medical specialty societies, resident physicians, medical students, medical schools, medical corps of the Army, Navy and Air Force; U. S. Public Health Service and Veterans Administration.

The West Virginia State Medical Association's two Delegates to the AMA House of Delegates are Drs. Richard E. Flood of Weirton and Frank J. Holroyd of Princeton, with Drs. Jack Leckie of Huntington and Harry S. Weeks, Jr., of Wheeling as Alternate Delegates.

Doctor Holroyd will be a member of Reference Committee E (Scientific-Public Health), which will consider, and report back to the House on, resolutions in its reference areas.

Doctor Weeks again has been nominated by the AMA Board of Trustees for the AMA's Council on Medical Services.

The AMA Board of Trustees has recommended substantial changes in AMA functions, activities and finances (including specific dues adjustments) for 1982 and beyond.

A new set of primary functions for the AMA recommended by the Board are: representing the membership; providing scientific and socio-economic information to the membership and the public; establishing, maintaining and implementing standards of conduct and performance for the membership; and maintaining and implementing educational standards — a shared responsibility with other organizations.

Presiding at the business sessions will be William Y. Rial, M. D., of Swarthmore, Pennsylvania, Speaker of the House.

Robert B. Hunter, M. D., of Sedro Woolley, Washington, is President of the AMA. President-Elect is Daniel T. Cloud, M. D., of Phoenix, Arizona, and he will assume the presidency on June 10. Chairman of the Board of Trustees is Lowell H. Steen, M. D., of Hammond, Indiana.

Cornea Bill Defeated

Amid the hustle and bustle to meet a copy deadline, a story in the May issue of *The Journal* detailing legislation action mistakenly reported as passed finally a physician-supported bill to authorize the provision of corneas, under certain conditions, to the Medical Eye Bank of West Virginia.

While the bill was passed without a dissenting vote in the Senate, it failed on the House floor in the final hours of the Legislature's 1981 Regular Session. It will be re-introduced next January.

Three faculty members in the West Virginia University School of Medicine were honored at the school's recent annual Awards Convocation. Anthony G. DiBartolomeo, M. D., left, Associate Professor of Medicine and Chief of the Section of Rheumatology, was chosen by members of the senior class as Clinician of the Year. The MacLachlan Award went to two winners this year—Dr. Howard D. Colby, center, Professor, and Dr. George A. Hedge, Professor and Chairman, both of the Department of Physiology. The award traditionally is given to an outstanding basic sciences teacher chosen by the sophomore class. (See article on other award recipients on Page xviii.)

First Medical Commencement Conducted By Marshall

By luck of the alphabet, a 26-year-old Fairmont native was the first graduate of Marshall University's School of Medicine during commencement exercises on May 9 in the Huntington Civic Center.

Patrick C. Bonasso, son of Mr. and Mrs. Russell Bonasso and the sixth of 12 children, was the first of the 18 class members to be presented to MU President Robert B. Hayes by School of Medicine Dean Robert W. Coon, M. D.

Doctor Hayes, in turn, awarded Bonasso his diploma, while David K. Heydinger, M. D., Associate Dean for Academic and Clinical Affairs, draped the academic hood symbolic of the medical doctorate around Bonasso's shoulders.

The same ceremony was repeated 17 times as Bonasso's classmates followed him across the platform. The class members and their hometowns are: Emmett F. Branigan, Morgantown; Dennis M. Burton, Williamstown; Harry G. Camper III, Welch; Galen E. Castle, Ashland, Kentucky; C. Dwight Groves, Summersville; Leslie N. Heddleston, Princeton;

F. Scott Hunter, Sandra J. Joseph, Douglas C. McCorkle, Stephen F. Morris and Stephen T. Pyles, all of Huntington; Brenda C. Smith, Dunbar; Nina K. Smith, Ripley; Stephen C. Smith, John F. Toney, Robert E. Turner, all of Huntington, and Keith H. Wharton, Morgantown.

State Medical Association President L. Walter Fix, M. D., right, talks with Marshall University School of Medicine Dean Robert W. Coon, M. D., left, and Class of 1981 President Steve Pyles following the school's Doctoral Investiture Program on Friday, May 8. Doctor Fix delivered the charge to the graduating class, the medical school's first.

During the week preceding commencement, Bonasso and his fellow medical school graduates took part in other special activities celebrating the historic event. On Tuesday, May 5, the graduates, faculty, members of the area medical community and invited guests heard "The Last Lecture" by Dr. George I. Lythcott, U.S. Assistant Surgeon General.

Doctor Lythcott, a pediatrician who currently heads the Health Services Administration, has been honored for his work in eliminating smallpox around the world.

On Friday, May 8, Dr. L. Walter Fix, West Virginia State Medical Association President, spoke at the Investiture Program at the Huntington Civic Center, at which time the students were asked to subscribe to the Declaration of Geneva rather than the Hippocratic Oath. The declaration, according to Doctor Coon, is similar to the oath, but is more meaningful for today's world and used by many medical schools. Receptions followed both programs.

The medical school graduation events, Doctor Coon noted, were planned by the students in cooperation with a special Medical Class of 1981 Committee whose members included: Dr. Albert C. Esposito; Dr. Charles H. Hagan; John Hurt, Vice President, Guaranty National Bank; Karen F. Jackson, Merrill Lynch Pierce Fenner & Smith, Inc.; Kenneth Smart, Certified Public Accountant; Dr. Charles E. Turner, and Steve Pyles, Class of 1981 President.

Council Approves Honorary, Retired Memberships

The Council, at a May 3 meeting, voted the following into honorary membership in the West Virginia State Medical Association after appropriate action by component societies:

Drs. Charles S. Duncan, Huntington, and C. Dudley Miller, Lincoln, Nebraska, both Cabell County Medical Society members; Evan B. Hume, Shepherdstown, Eastern Panhandle; Ralph Frazier, Beckley, Fayette; Bert Bradford, Charleston, Kanawha; J. C. Ray, Jeffersonville, Indiana, McDowell; Daniel W. Dickerson, Wheeling, Ohio, and Richard V. Lynch, Jr., Morgantown, Monongalia.

Dr. J. Paul Aliff of Teays, a member of Kanawha Medical, was voted into retired membership.

Liberation Of Women Adds To Their Health Risk

Are women to be liberated, only to take on the poorer health common to men?

By the turn of the century, the relative health of women will decline as they increasingly enter the world of paid work and their lives take on some of the advantages and the problems that traditionally belonged to men.

In a report on "A Woman's View of Women at Work," Nancy Milio, PhD, Professor of Health Administration, School of Public Health of the University of North Carolina, Chapel Hill, points out that women's death rates from heart and respiratory diseases are expected to be higher than in the mid-1970s, while the rates for men will be lower.

The article appears in published proceedings of an Occupational Safety and Health Symposium conducted by the American Medical Association, in collaboration with the National Institute for Occupational Safety and Health.

Women's life span now surpasses men by eight years, but the gap is likely to narrow by the year 2000.

In the future, women will die more often from liver cirrhosis at a pace almost equal to that of men, Doctor Milio declares. They will not improve in circulatory and digestive disease conditions as much as men.

The extent of these shifts in women's health will depend in part on those responsible for occupational health. Women will more than ever play out their lives in occupational arenas, she says.

Many Now in Work Force

More than half of all women 16 years or over are in the labor force. More than half of these are married and living with their husbands. The rest of the female work force are divorced, separated or widowed, and single. Better than one in 10 women workers are heads of families.

Well over half of the working women have economic responsibility for themselves and younger dependents, the role traditionally that has been held by men, Doctor Milio emphasizes.

Women's behavioral patterns also are changing. More women smoke; the average woman is as much as 20 per cent overweight. She engages less in sports than do men.

Women more than men suffer health risks imposed by low income and poverty. Their diets are deficient in calories and in iron.

Unemployment is higher for women than for men, and the majority are in low-paying occupations, earning overall no more than 60 per cent of a man's earnings.

Given the opportunity for comparable jobs, women face the same work environmental risks as men: asbestos, toxic chemicals, coal, noise, heavy workloads and rotating workshifts. From 10 to 20 per cent of working women are now in hazardous jobs.

At home the strain is heavier than for men. Working women are less likely to have a spouse or partner to help care for the children. Even when a spouse is present, women spend more time in unpaid work at home. They have an average six fewer hours of free time per week for recreation.

Health Risks of Affluence

The health risks of women are not merely the hazards of the job, but include these risks that are part of what it now means to be an affluent American — overeating, drinking and smoking and lack of vigorous exercise. They also include low income, undernutrition and sub-standard living conditions. While women have an increasing economic responsibility for themselves and their families, they are having to assume that responsibility with fewer chances to get and hold a well-paying job and at higher cost in time to themselves.

Not only is the state of women's health important, Doctor Milio points out, but the health and welfare of the unborn must be considered. And yet women often are lacking full support during periods of pregnancy and childbirth. Maternity benefits under employee health plans provide benefits comparable to non-maternity health costs for less than 40 per cent of covered workers.

The task of protecting and improving the health of women workers calls for programs and policies that can help compensate for their health risks, she says. Health practitioners must teach and reinforce healthful habits and safety practices, refer persons to community resources for child or prenatal care or food stamp programs, and help women understand their rights and entitlements.

The health professional must work with management, unions and other groups to initiate and support workplace programs that will improve health-promoting options. These options may include educational programs, more healthful food in cafeterias and vending machines, segregated smoking areas, exercise breaks, smoking cessation and weight control clinics, child care arrangements, prenatal and other

high-risk monitoring. It involves reduction in environmental safety and health hazards, flexible workday scheduling, equalization of health plan benefits and coverage and extension and improvement of unemployment insurance, Doctor Milio advocates.

This all will help men, too. As household and family patterns change, child care will become a problem for single and married men, and they too will benefit from flexible work time and maternity leaves.

The AMA Congress on Occupational Health on which the published proceedings are based was organized by Jermyn F. McCahan, M.D., and Robert H. Wheater, with the assistance of Barbara Jansson. Mr. Wheater edited the proceedings. Copies are available from the Division of Technical Services, National Institute of Occupational Safety and Health, 4676 Columbia Parkway, Cincinnati, Ohio 45226, or from the regional offices of NIOSH.

Alcoholism Is Disability, Says AMA In Policy Statement

Alcoholism is a disability, declares the American Medical Association in its most recent policy statement on alcoholism.

Long a proponent of the view that alcoholism is an illness, the AMA adopted the position that alcoholism also encompasses disability at the 1980 Interim meeting of its House of Delegates. The action was taken as a contribution toward AMA participation in the U.S. Council for the 1981 International Year of Disabled Persons.

The AMA's *Manual on Alcoholism* defines alcoholism as an "illness characterized by significant impairment that is directly associated with persistent and excessive use of alcohol. Impairment may involve physiological, psychological and social dysfunction." Alcoholism is a treatable chronic disorder with a tendency toward relapse, and the aim of treatment is more often one of control and rehabilitation than cure.

Among the millions of persons in the United States who are physically or mentally disabled, a significant number also are alcoholics. Physical and mental disability can precede or contribute to the development of alcoholism as well as result from it.

Patients who have more than one disability, including alcoholism, are especially vulnerable. These multiple disabilities, usually chronic in nature, may increase the potential for alcoholic relapse, job and social problems.

Medical Meetings

June 5-6—WV State Society of Anesthesiologists, Morgantown.

June 5-7—Diagnostic Ultrasound Conference (Los Angeles Radiological Society), Los Angeles.

June 7-11—Am. Society of Colon & Rectal Surgeons, Colorado Springs.

June 7-11—AMA House of Delegates, Chicago.

June 11-16—Am. Diabetes Assn., Cincinnati.

June 13-17—Head & Neck Oncology (5th) (UCLA), Los Angeles.

June 16-19—Society of Nuclear Med., Las Vegas.

July 5-10—National Rehabilitation Conference (Assn. of Med. Rehab. Directors and Coordinators; Am. Assn. for Rehab. Therapy), Hollywood, Fla.

July 17-19—Endocrine Society, Cincinnati.

July 30-Aug. 2—International Doctors in Alcoholics Anonymous, Beachwood, Ohio.

Aug. 20-22—114th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.

Aug. 31-Sept. 3—Am. Hospital Assn., Philadelphia.

Sept. 12-15—Am. College of Radiology, Las Vegas.

Sept. 14-15—Am. College of Nutrition, Bethesda, Md.

Sept. 14-16—Am. Neurological Assn., San Francisco.

Sept. 14-17—Am. College of Emergency Physicians, New Orleans.

Oct. 1-4—ASIM, New York City.

Oct. 20-24—Ky. Med. Assn., Louisville.

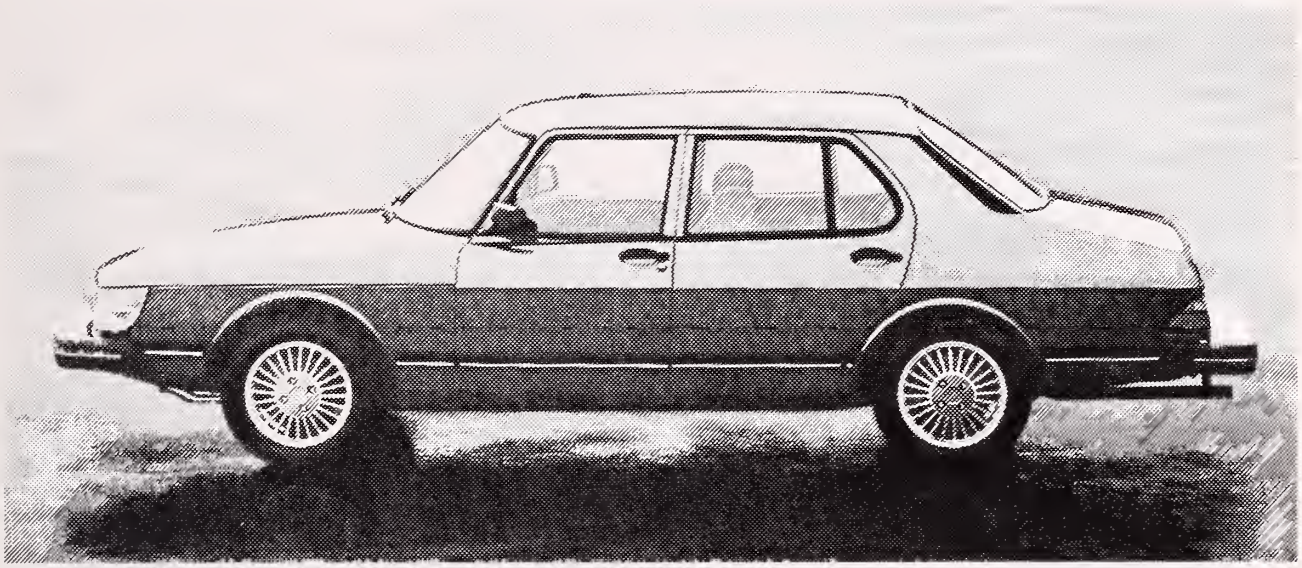
The new AMA policy on alcoholism, formulated by the AMA Council on Scientific Affairs, states:

(1) The AMA believes it is important for professionals and laymen alike to recognize that alcoholism is in and of itself a disabling and handicapping condition.

(2) The AMA encourages the availability of appropriate services to persons suffering from multiple handicaps, including alcoholism.

(3) The AMA endorses the position that printed and audiovisual materials pertaining to the subject of people suffering from both alcoholism and other disabilities include the terminology "alcoholic person with multiple disabilities" or "alcoholic person with multiple handicaps." Hopefully, this language clarification will reinforce the concept that alcoholism is in and of itself a disabling and handicapping condition.

IF YOU LOOKED AT THE NEW 1981 SAAB SEDAN THE WAY WE DO, YOU'D CALL IT BEAUTIFUL, TOO.



Just look at the things that really matter.

For example, the new Saab's backseat folds down to provide 53 cubic feet of cargo space—more than any other sedan in America.

The 1981 Saab's fuel-injected engine gives you the muscle of 6 or 8 cylinders, but does it with just 4.

And because the Saab has front-wheel drive, you experience superior handling and stability, even during inclement weather.

And the list goes on.

If, however, you're still not convinced that the new Saab Sedan is one of the most beautiful cars in the world, you'll simply have to come by and take a test drive.

And see for yourself.

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THE MOST INTELLIGENT CAR EVER BUILT.

Harvey Shreve

Ford BMW SAAB

WVU Medical Center –News–

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Awards Convocation Honors Students, Faculty

For the first time in West Virginia University School of Medicine history, two first prizes for student research were given during the annual awards convocation held this spring. Other achievements by students and faculty also were recognized.

Vincent Traynelis, a second-year student from Morgantown, placed first in Category I for the Edward J. Van Liere Award, a medal and $200.

William Manion, a third-year student from Warminster, Pennsylvania, placed first in Category II and was awarded $200.

Category I recognizes independent research. Category II includes research done in partial fulfillment of degree requirements. Research results were presented during the annual E. J. Van Liere Research Convocation for Students in the School of Medicine.

Second Place

Second place and an award of $100 in Category I went to Sanay Yadav, a second-year student from St. Albans. Cathy L. Romine, a fourth-year student from Huntington, and Sharon K. Hill, a physical therapy senior from New Martinsville, each received a Category I third-place award of $50.

Semele Foundas, a first-year student from Charleston, received an award of $100 for second place in Category II.

J. David Haddox of Logan was recognized by his senior classmates for the Upjohn Award based on applied personal qualities including character and leadership. The award consists of an engraved plaque and a $150 prize. Haddox also received the William Bennett Prize in Anesthesiology, an award of $100.

Presented for the first time this year were the Sandoz Awards for Outstanding Students in Psychiatry. The awards of $100 and a plaque went to third-year students Joe J. White of St. Albans and Kathryn Lowry of Morgantown.

Other honors were:

Edward G. Stuart Memorial Award to the senior who "best exemplifies the qualities of empathy and understanding and strengthens competence with compassion," Deborah Dickert Knapp of South Charleston. The award includes a plaque and desk clock, and the student's name is engraved on a permanent wall plaque in the Dean's office.

Lindsay Memorial Award for outstanding performance in physiology, Daniel L. Smith, a second-year student from Sissonville.

Anido Award for outstanding academic achievement in laboratory medicine by a second-year student, Robert D. Allara of Iaeger.

CIBA Award for outstanding community service, Charles Rolfe, a second-year student from Parkersburg. Rolfe is a member of the Monongalia County Emergency Medical Service. He organized and taught a CPR class and established a class-wide blood donation program.

Scholastic Achievement

Merck Manual Award for scholastic achievement, seniors James P. Gillen of Wheeling and Philip W. Day of Huntington.

Lange Book Awards for scholarship: seniors Thomas W. Croghan of Clarksburg and Ms. Knapp; juniors Michael E. Cunningham of Paden City and Mark W. Minor of Wellsburg: sophomores Michael T. Angotti of Clarksburg and Smith; freshmen Michael G. Nunley of Charleston and Stephen J. Freshwater of Wellsburg.

Mosby Book Awards for scholarship, sophomores Richard J. Jackson of Martinsburg, Gary J. Renaldo of Fairmont and Daniel W. Wilson of St. Marys.

American Medical Women's Association Scholarship Achievement Citations to honor graduates, Ms. Knapp, Robert Galford of Weston, Suzanne B. Canning, Susan Bonfili and Jo Ann O'Keefe, all of Morgantown.

THE GOLDEN CLINIC

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ELKINS, WEST VIRGINIA

ANESTHESIOLOGY:
Y. H. Chung, M. D.

COMMUNITY MEDICINE:
R. C. Gow, M. D. (Thomas)
S. O. Chung, M. D.
G. Rogin, M. D. (Marlinton Clinic)
M. E. Rogin, M. D. (Marlinton Clinic)
M. C. Rosenberg, D. O. (Helvetia Clinic)
L. E. Soriano, M. D. (Marlinton Clinic)
E. G. Werner, M. D. (Riverton Clinic)

EMERGENCY MEDICINE:
R. H. Plummer, D. O.
A. M. Fuller, M. D.
F. A. Khan, M. D.
D. J. Lloyd, M. D.

FAMILY PRACTICE:
L. H. Valliant, M. D.

INTERNAL MEDICINE:
Gastroenterology:
S. S. Masilamani, M. D.
Allergy & Rheumatology:
J. B. Magee, M. D.
Cardiology:
H. L. Jellinek, M. D.
Metabolic & Endocrine Diseases:
F. Becerra, M. D.
Pulmonary Diseases:
J. C. Arnett, Jr., M. D.

OBSTETRICS & GYNECOLOGY:
H. H. Cook, Jr., M. D.
J. F. de Courten, M. D.
J. J. Rizzo, M. D.
M. W. Strider, M. D.

OPHTHALMOLOGY:
J. N. Black, M. D.

ORTHOPAEDIC SURGERY:
J. G. Gomez, M. D.
D. R. Antonio, M. D.

OTOLARYNGOLOGY (Facial Cosmetic and Reconstructive Surgery):
N. Stronach, M. D.

PATHOLOGY:
M. M. Stump, M. D.

PEDIATRICS:
Y. J. Kwon, M. D.
R. J. Haas, M. D.

RADIOLOGY:
F. H. Abdalla, M. D.
H. Y. Mang, M. D.
C. P. O'Sullivan, M. D.

SURGERY:
General, Thoracic & Vascular:
J. A. Noronha, M. D.
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R. A. Rose, M. D.

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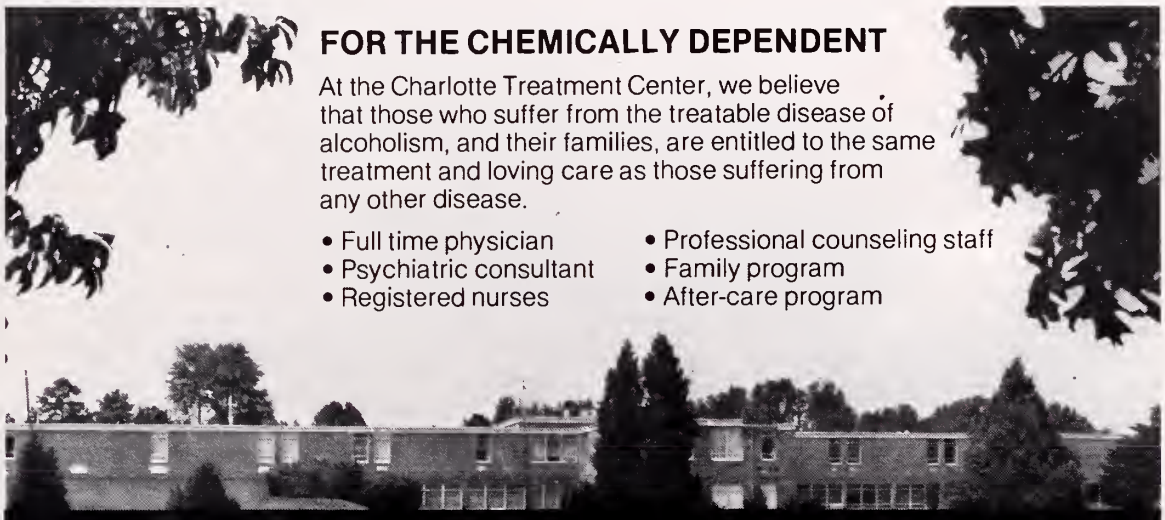
D. T. Chua, M. D.



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Third-Party News, Views and Program Concerns

FTC Reverses Threat To Cut Doctors From Boards

The threat of federal intervention against physicians sitting on policy-making boards of Blue Shield or similar medical insurance plans has been lifted by the Federal Trade Commission, the American Medical Association reported recently.

The agency abandoned a two-year-old proposal by the Commission's Bureau of Competition that the FTC issue a rule limiting control physicians or medical societies may have over the 70 Blue Shield boards.

Additional studies have contradicted original staff findings that health care costs were higher in areas where physicians controlled Blue Shield boards, FTC officials said. They also noted that consumer representation has increased on boards in recent years.

The Commission's decision to abandon the industry-wide effort was unanimous and came after less than 50 minutes of debate and without a formal vote.

One of a Series

The FTC proposal was one of a series aimed at health care providers and insurors in recent years, and ranked in importance only behind the FTC's action against the AMA's code of ethics involving physician advertising.

Blue Shield plans disputed the FTC's staff allegations that physician reimbursement was higher where physicians exercised significant control over local Blue Shield plans.

Instead of an industry-wide rule on the matter, an action that probably would have been protested in court, the FTC decided to seek any abuse on a case-by-case basis.

The controversial staff report, which received prominent media attention at the time, charged that control by the medical profession of insurance plans is so pervasive that some physicians call Blue Shield "the economic arm of the medical profession."

In a statement on the FTC's action, Walter McNerney, President of Blue Cross-Blue Shield, said the decision "vindicates" the Blue Shield position that the presence of physicians on Blue Shield boards does not produce higher fees. He said the staff recommendation was, in part, a "complete reversal" of previous findings.

Acting FTC Chairman David Clanton said the new analysis "suggests that some previously suspected relationships do not hold, but the study still shows a troublesome relationship between medical society involvement on Blue Shield boards and fee levels for several expensive medical procedures."

Bill Would Phase Out Federal HMO Financial Support

The Administration has sent Congress legislation phasing out federal financial support for health maintenance organizations (HMOs), according to the American Medical Association.

The bill will "help ensure that health maintenance organizations and other modes of health delivery face a fair test in the marketplace," said Richard Schweiker, Secretary of the U. S. Department of Health and Human Services (HHS), in a letter of transmittal.

Schweiker commented that the federal aid has given HMOs "an advantage over other forms of health delivery."

The bill eliminates certain federal restrictions on HMOs "that have inhibited their ability to compete successfully," Schweiker added. It also authorizes appropriations of $1 million for the next three fiscal years for HMO training and technical assistance, and $35 million yearly for the HMO loan fund.

No federal assistance would be provided for starting up any new HMO. Other provisions of the bill would remove mental health and substance abuse services from the list of required services and make them optional, and repeal current limitations as to HMOs contracting with individual physicians for the provision of health services.

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Richard S. Glass, M. D.

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Carlos A. Vasquez, M. D.
Thomas E. Chvasta, M. D.
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James P. Frum, M. S.

Clinical Laboratories:
Donna Burlenski
Donna Bryan

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Joann Green, P. A.
Michael G. Simon, P. A.

Technologists:
Electrocardiography:
Betty Maguire, R. N.
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Obituaries

PONZIANO P. FERRARACCIO

Dr. Ponziano P. Ferraraccio of Bluefield, Virginia, a general practitioner, died on April 8 in a Bluefield, West Virginia, hospital. He was 70.

A native of Troia, Italy, Doctor Ferraraccio was graduated from Allegheny College in Meadville, Pennsylvania, and received his M. D. degree in 1939 from Chicago Medical School. He interned at Baptist Hospital in Winston-Salem, North Carolina, and completed his residency at St. Luke's Hospital in Bluefield.

Doctor Ferraraccio was a member of the Mercer County Medical Society, West Virginia State Medical Association, American Medical Association, and the medical society in Tazewell County, Virginia.

Survivors include the widow; two sons, Dr. Paul Ferraraccio of Pulaski, Virginia, and Dr. David Ferraraccio of Minneapolis; four brothers, Sam R. Ferraraccio of Erie, Pennsylvania; John and Michael Ferraraccio, both of DuBois, Pennsylvania, and Franc Ferraraccio of Rockville, Maryland; and two sisters, Connie Ferraraccio of DuBois and Mrs. Mary Farris of Bluefield.

* * *

JOHN McL. ADAMS, M. D.

Word recently was received by *The Journal* of the death, in January, of Dr. John McL. Adams of Ranson in Winchester, Virginia. He was 79.

A radiologist, Doctor Adams previously had practiced in Winchester.

He was a member of the Jefferson Medical Society and the West Virginia State Medical Association.

A native of North Carolina, Doctor Adams attended Davidson College and the University of North Carolina, receiving his M. D. degree in 1929 from Jefferson Medical College.

He served his internship at Protestant Episcopal Hospital in Philadelphia, and residencies at the University of Pennsylvania and the University of Virginia.

* * *

HOLMES BLAIR, M. D.

Dr. Holmes Blair of Parkersburg, a retired general practitioner and anesthesiologist, died on March 28 in a hospital there from injuries

(Continued On Page xxv)

CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by S. pneumoniae (formerly D. pneumoniae)
Otitis media caused by S. pneumoniae (formerly D. pneumoniae) and H. influenzae
Acute exacerbation of chronic bronchitis caused by H. influenzae*
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to H. influenzae.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by E. coli and P. mirabilis. (This drug should not be used in any E. coli and P. mirabilis infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS.) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight 20 kg (44 lbs) 125 mg q.i.d. body weight > 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day†
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
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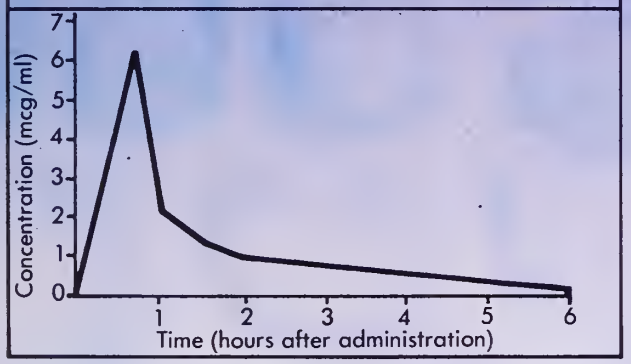

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*Based on T^{α} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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†Due to susceptible organisms.

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NEW NAME

County Societies

McDOWELL

The McDowell County Medical Society met on April 8 at Stevens Clinic Hospital in Welch.

The Society discussed "Community in the Classroom," a health education project for high school students; physician-recruitment problems for McDowell County, and the future development of Welch Emergency Hospital.—Muthusami Kuppusami, M. D., Secretary.

* * *

PARKERSBURG ACADEMY

John L. Abruzzo, M. D., of Philadelphia was guest speaker for the meeting of the Parkersburg Academy of Medicine on April 8 at the Parkersburg Country Club.

Doctor Abruzzo is Professor of Medicine and Head of the Rheumatology Division at Jefferson Medical College. His topic was "Rheumatology Arthritis."—Ghassan Khalil, M. D., Secretary-Treasurer.

LOGAN

Dr. L. Walter Fix of Martinsburg, President of the State Medical Association, was the guest at the meeting of the Logan County Medical Society on April 15 at the Villa Restaurant in Logan.

Doctor Fix, who was accompanied by Mrs. Fix, discussed the need for maintaining close patient rapport and ethical standards of conduct, and the goal of cost reduction in hospital and clinical practice.

He also emphasized the role of the State Medical Association and the American Medical Association in representing the interests of their constituents.—Herbert D. Stern, M. D., Secretary.

* * *

FAYETTE

The Fayette County Medical Society met on May 1 at the Fayette Plateau Medical Center in Oak Hill.

The guest speaker was Robert H. Waldman, M. D., Professor and Chairman of Medicine, West Virginia University School of Medicine,

(Continued on Next Page)

OFFICERS OF COMPONENT SOCIETIES

Society	President		Secretary		Meetings
Boone	Probhand Chinuntdet	Madison	Manuel T. Uy	Madison	3rd Wed.
Brooke	Rogelio L. Velarde	Follansbee	Wm. T. Booher, Jr.	Wellsburg	
Cabell	Robert C. Nerhood	Huntington	Maurice A. Mufson	Huntington	2nd Thurs.
Central West Virginia	John A. Mathias	Buckhannon	Joseph B. Reed	Buckhannon	As Sched.
Eastern Panhandle	Harvey D. Reisenweber	Martinsburg	Orlando I. Agnir	Martinsburg	2nd Wed.
Fayette	Daniel B. Doyle	Scarbro	Honorato M. Aguila	Oak Hill	1st Wed.
Greenbrier Valley	Richard F. Carter	White Sulphur Spgs.	Dale G. Knutson	Ronceverte	2nd Wed.
Hancock	Thomas J. Beynon	Weirton	Irwin M. Bogarad	Weirton	3rd Tues.
Harrison	Victorino D. Chin	Bridgeport	Gaspar Z. Barcinas	Bridgeport	1st Thurs.
Jefferson	Mildred L. Williams	Charles Town	Vettivelu Maheswaran	Ranson	1st Wed.
Kanawha	Echols A. Hansbarger, Jr.	Charleston	Donald E. Farmer	Charleston	2nd Tues.
Logan	Abelard A. Pelaez	Logan	Herbert D. Stern	Logan	2nd Wed.
Marion	William L. Mossburg	Fairmont	E. G. Cadogan	Fairmont	Last Tues.
Marshall	Jesus T. Ho	Moundsville	Jose J. Ventosa	Glen Dale	1st Tues.
Mason	Montrie Chaksupa	Point Pleasant	Richard L. Slack	Point Pleasant	4th Tues.
McDowell	Ross M. Patton	Gary	M. Kuppusami	Welch	2nd Wed.
Mercer	G. D. Duremdes	Princeton	David F. Bell, Jr.	Bluefield	3rd Mon.
Mingo	Russell A. Salton	Williamson	Edward B. Headley	Delbarton	2nd Wed.
Monongalia	Roland J. Weisser, Jr.	Morgantown	Paul J. Jakubec	Morgantown	1st Tues.
Ohio	Milton E. Nugent	Wheeling	Robert L. Joseph	Wheeling	4th Tues.
Parkersburg Academy	A. Paul Brooks	Parkersburg	Ghassan A. Khalil	Parkersburg	1st Thurs.
Potomac Valley	Jeffrey S. Life	Romney	Sadtha Surattanont	Romney	2nd Wed.
Preston	Frederick A. Conley	Kingwood	C. Y. Moser	Kingwood	4th Thurs.
Raleigh	James A. Barnes	Beckley	Jose L. Oyco	Beckley	3rd Thurs.
Summers	Chandra P. Sharma	Hinton	T. H. Mirza	Hinton	3rd Mon.
Tygart's Valley	C. Z. Villaraza	Grafton	Michael M. Stump	Elkins	3rd Thurs.
Western Med. Soc. of WV	Aaron D. Cottle	Spencer	A. H. Morad	Ripley	Bi-Monthly
Wetzel	Donald A. Blum	New Martinsville	K. M. Chengappa	New Martinsville	Monthly
Wyoming	Frank J. Zsoldos	Mullens	George F. Fordham	Mullens	Quarterly

OBITUARIES—*Continued from Page* XXII

sustained in a car-pedestrian accident March 23. He was injured when he walked into the side of a car while returning to his home from a market across the street. He was 75.

Doctor Blair was a former member of the Parkersburg Academy of Medicine, West Virginia State Medical Association and American Medical Association.

Survivors include two sons, Ralph Blair of Belleville (Wood County) and John Blair, at home; three daughters, Mrs. Mary Elizabeth Callison and Louisa Jane Blair, both of Huntington, and Mrs. Alice Royce of Keyser; three brothers, Rolla Blair of Coolville, Ohio; E. Harold Blair of Parkersburg and Dr. F. Lloyd Blair of Walker (Wood County), and a sister, Mrs. Mary Isaacs of Lexington, Kentucky.

COUNTY SOCIETY—*Continued from Page* XXIV

Morgantown. His subject was "The Rational Use of Antibiotics and Why We Should Care."

The Society approved a donation of $500 to the American Red Cross Building Fund.

Upon adjournment, the members went to Oak Hill High School for the Continuing Education Outreach Program from WVU Medical Center/Charleston Division. — Honorato M. Aguila, M. D., Secretary.

* * *

TYGART'S VALLEY

The Tygart's Valley Medical Society met on April 16 at Grafton City Hospital.

The Society elected delegates to the Annual Meeting of the State Medical Association in August, and appointed various committee members.—Michael M. Stump, M. D., Secretary.

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WVU GRADUATES—*Continued from Page 148*

Charleston, Bowman Gray School of Medicine, Wake Forest University, Winston-Salem, North Carolina; Christopher L. Marquart, West Alexander, Pennsylvania, Indiana University Medical Center, Indianapolis;

Steven L. McCormick, Barboursville, CAMC; Donald H. Moore, Buckeye, Kanawha Valley Family Practice Center; Wafa J. Nasser, Princeton, Cincinnati General Hospital; John P. Neal, St. Albans, Washington (D. C.) Hospital Center; Margaret H. Neal, Vienna, George Washington University Hospital, Washington, D. C.; Mark A. Nunley, Charleston, William Beaumont Army Medical Center, Texas; JoAnne A. O'Keefe, Morgantown, WVU Department of Medicine;

Jonathan B. Pace, Fairfax, California, Marshall University Affiliated Hospitals, Huntington; Albert J. Paine, Bluefield, Roanoke (Virginia) Memorial Hospital; Robert J. Peard, New Martinsville, Mercy Hospital, Pittsburgh; Michael H. Pearman, Huntington, WVU Department of Anesthesiology; Randall W. Peterson, Barboursville, Bayfront Medical Center, St. Petersburg, Florida; Mary Anne Pope, Bolivar, WVU Department of Psychiatry; David W. Ranson, Dunbar, CAMC; Diane Beach Rice, Union, New Jersey; Fairfax (Virginia) Hospital;

Ralph E. Rickel, Charles Town, New Hanover Memorial Hospital, Wilmington, North Carolina; Donna M. Roberts, Bradshaw, University of Louisville (Kentucky) Affiliated Hospitals; Cathy L. Romine, Huntington, WVU Department of Anesthesia; Catherine Rose, Morgantown, University of California at San Diego Affiliated Hospitals; William Allan Shabb, Charleston, Maine Medical Center, Portland; James K. Smith, Chester, Presbyterian-University Hospital, Pittsburgh; Robert D. Steed, Charleston, CAMC;

Frances I. Stewart, Charleston, CAMC; Gregory C. Stonestreet, Charleston, Kanawha Valley Family Practice Center; Kyle W. Strader, Clarksburg, Milton S. Hershey Medical Center, Hershey, Pennsylvania; Cynthia G. Susskind, Fairmont, Methodist Hospital, Indianapolis; Samuel S. Thatcher, Chattanooga, Tennessee, Yale-New Haven (Connecticut) Hospital;

David N. Thrush, Clarksburg, WVU Department of Anesthesiology; N. Andrew Vaughn, Parkersburg, CAMC; Thomas W. vonDohlen, Charleston, CAMC; Amos W. Wilkinson, Clarksburg, WVU Department of Medicine; and Ted A. Williams, Huntington, Ohio State University Hospitals, Columbus.

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ANNOUNCEMENT

A Symposium designed for the family practitioner will be held at Seven Springs Resort August 16-19, 1981, and will be co-sponsored by Jefferson Medical College of Thomas Jefferson University and Latrobe Area Hospital.

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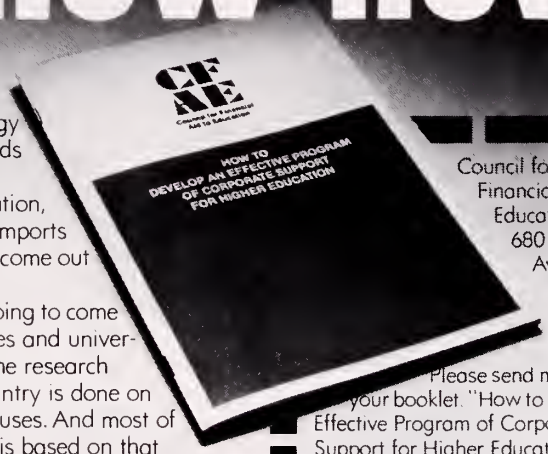

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As I waltzed with my daughter, it really did seem worth all the expense. She looked up at me and said, "Thank you, Daddy."

A rainy day.

"Good Lord, Harry, just look at all this. They ought to lock us up. We must have flipped. We really can't afford it!"

I looked around the reception hall of the local country club. Table after table had been set up for the wedding feast. An orchestra was tuning up. Waiters scurried around with buckets of champagne. And it was all on *me*.

Mrs. Hillman, second cousin to the groom, passed by and said something I couldn't understand. I smiled at her while I said to my wife, Martha, "Don't worry. I told you I had a way to pay for it."

"I *do* worry. I'm a *born* worrier. What do you have in mind? Selling the house? Or just taking every last cent out of the bank?"

I wondered what the chances were of getting a glass of the champagne. "Nope, not the house", I said. "But we will have to cash in a large chunk of those U.S. Savings Bonds."

"The Bonds! Oh, Harry, I'd forgotten the Bonds. What a lifesaver!"

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The band struck up as the wedding party came in the door. Everyone applauded. Martha was smiling with a big tear rolling down her cheek.

"Oh, Harry, isn't she beautiful? It's worth it. Even though we were saving those Bonds for a rainy day."

I put my arm around her and said, "Don't worry, I'm still buying them every payday. And as far as rainy days go. . . take a look out the window."

As I waltzed with my daughter, it really did seem worth all the expense. She looked up at me and said, "Thank you, Daddy. For everything. And especially for today."

I shrugged and said in an offhand manner, "It's nothing, nothing at all."

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Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders, athetosis; stiff-man syndrome. *Oral form* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures, tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

Contraindications: Tablets in children under 6 months of age, known hypersensitivity; acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.

Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication, abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.

INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins, i.e., dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*

Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest, concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea, have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least ⅓, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs. Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.

Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.

Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam/Roche), *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).

INJECTABLE: Although promptly controlled, seizures may return, re-administer if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.

Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported, should these occur, discontinue drug.

Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam/Roche) therapy and are of no known significance.

INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.

In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.

Dosage: Individualized for maximum beneficial effect.

ORAL—*Adults:* Anxiety disorders, relief of symptoms of anxiety, 2 to 10 mg *b.i.d.* to *q.i.d.*, acute alcohol withdrawal, 10 mg *t.i.d.* or *q.i.d.* in first 24 hours, then 5 mg *t.i.d.* or *q.i.d.* as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg *t.i.d.* or *q.i.d.*; adjunctively in convulsive disorders, 2 to 10 mg *b.i.d.* to *q.i.d.* *Geriatric or debilitated patients:* 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg *t.i.d.* or *q.i.d.* initially, increasing as needed and tolerated (not for use under 6 months).

INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)

For dosages in infants and children see below; have resuscitative facilities available.

I.M. use: by deep injection into the muscle.

I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.

Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcoholic withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children, *administer I.V. slowly;* for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available.

Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred), repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.

In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure; if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.

Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.

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Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse" and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

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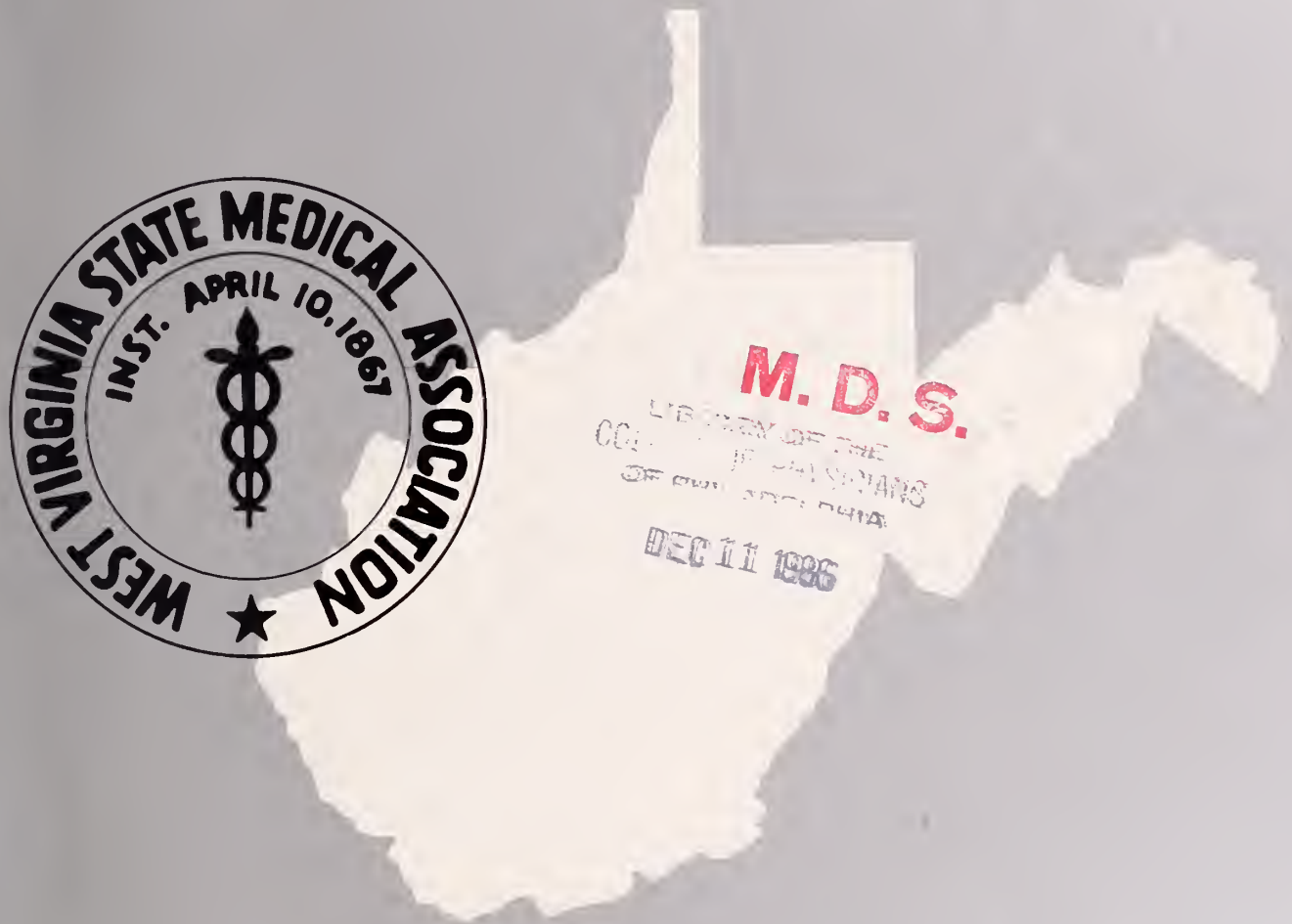

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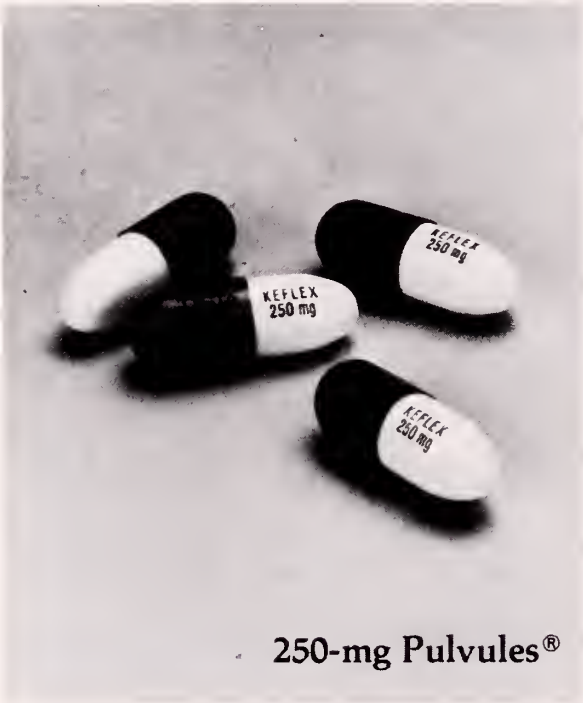

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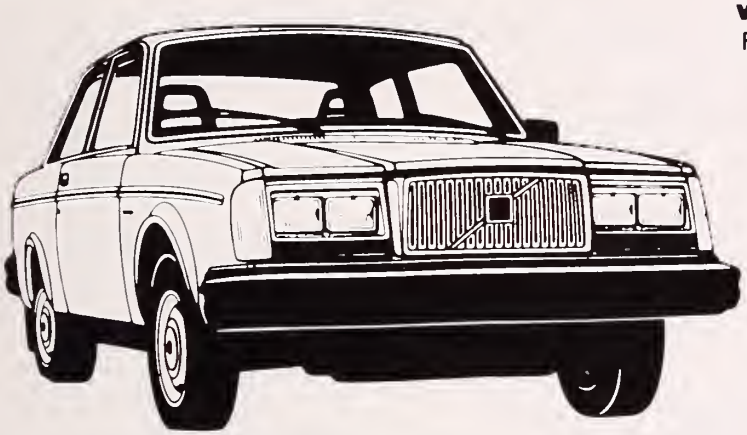

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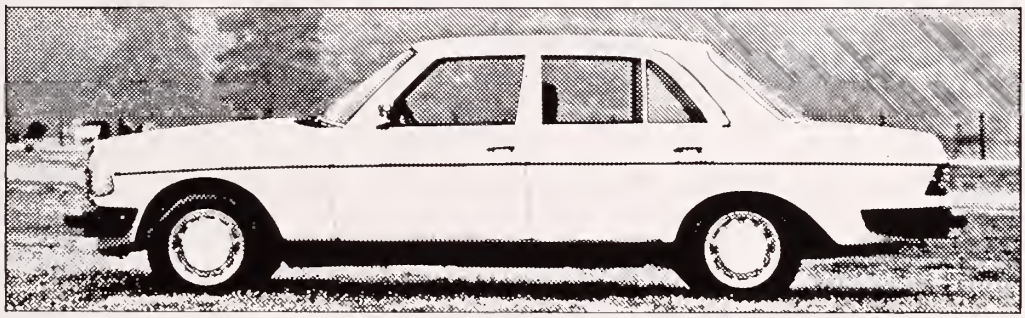

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Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) ®, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety: 2 to 10 mg b.i.d. to q.i.d.; alcoholism: 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm: 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders: 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

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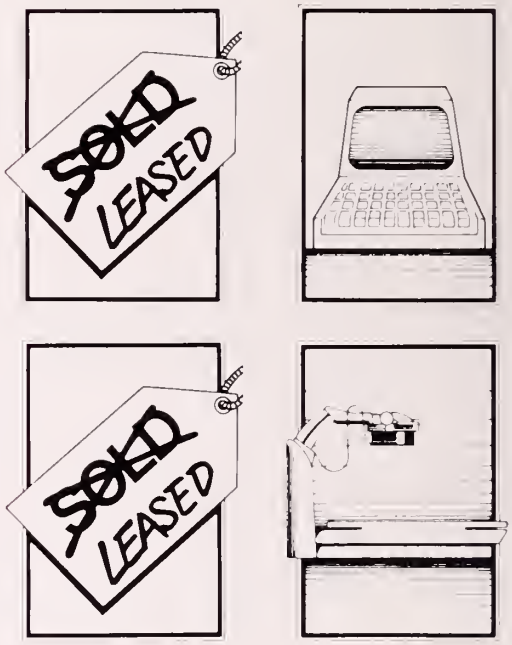

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(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and or other information, FDA has classified the indications as follows
"Possibly" effective for the treatment of pain accompanied by tension and or anxiety in patients with musculoskeletal disease or tension headache
Final classification of the less-than-effective indications requires further investigation
The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate
WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures
Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination
USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug
Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.
Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under
PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue patients should not operate a motor vehicle or any dangerous machinery
Suicidal attempts with meprobamate have resulted in coma shock vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow CNS stimulants, e g caffeine, Metrazol or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels
ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness
A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions
Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae ecchymoses, peripheral edema, and fever have also been reported
More severe cases observed only very rarely may also have other allergic responses, including fever, fainting spells angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted
Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug
Impairment of accommodation and visual acuity has been reported rarely
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions
DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

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for mild to moderate pain

Wygesic®IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g., driving a car or operating machinery. Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down.
Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and/or tidal volume, Cheyne-Stokes respiration), cyanosis, extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists naloxone, nalorphine, and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g., caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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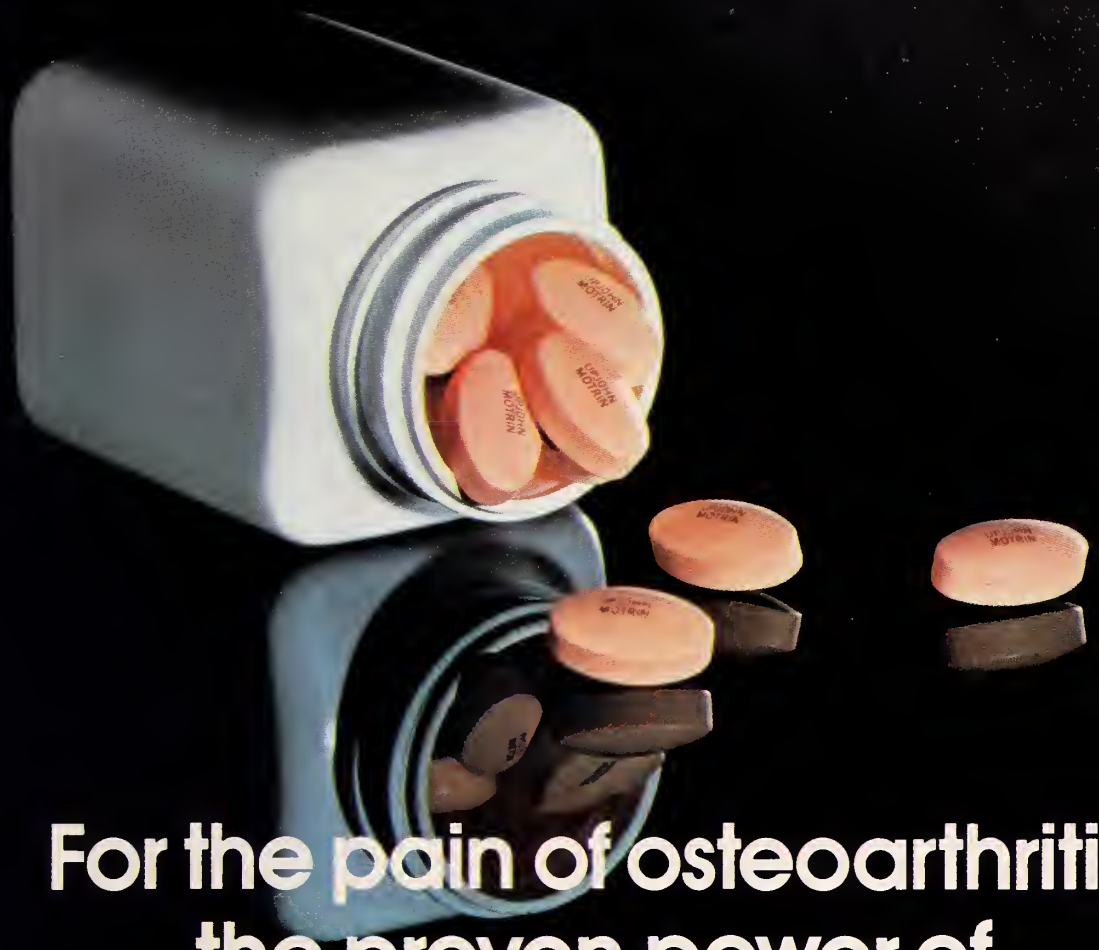

For the pain of osteoarthritis the proven power of

Motrin®

ibuprofen, Upjohn

600 mg Tablets

One tablet t.i.d.

Please see the following page for a brief summary of prescribing information.

Upjohn

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Motrin® Tablets (ibuprofen, Upjohn)

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other nonsteroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin*; use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. *Aspirin:* used concomitantly may decrease *Motrin* blood levels.
Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship*

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown*

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under *"Probable Causal Relationship" (PCR)* if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under *"Causal Relationship Unknown"* if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

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The West Virginia Medical Journal

Vol. 77, No. 7 July, 1981

Juvenile Nasopharyngeal Angiofibromas

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Southern California Permanente Medical Group, Bellflower Hospital, Bellflower, California

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Nasopharyngeal angiofibromas are uncommon, locally aggressive, benign, vascular tumors most commonly presenting in the nasopharynx of white, adolescent males. The tumors are referred to as juvenile nasopharyngeal angiofibromas because of their predilection for males in the second decade of life. Advocated treatment modalities include surgical removal, hormonal manipulation and radiotherapy.

This paper reviews the surgical experience and treatment results of angiofibromas at West Virginia University Medical Center. The literature concerning the clinical presentation, evaluation and treatment also is reviewed.

Eleven patients with angiofibromas were treated primarily at West Virginia University Medical Center during the past 14 years. These patients were white males ranging in age from 11 to 21 years. The presenting complaint prior to diagnosis was epistaxis in all patients except one. All patients had a complaint of nasal airway obstruction. Other presenting complaints included nasal polyps, allergic rhinitis, and displacement of the palate.

Physical examination in all patients revealed a pink-blue, nodular, unilateral nasopharyngeal mass. Five tumors were to the left of midline and six to the right. There was visible extension laterally into the adjacent maxillary antral area or pterygomaxillary space in nine patients.

Radiological evaluation of the angiofibromas included routine sinus x-rays (Figure 1) in all patients, tomograms of the paranasal sinuses in most patients and, most recently, bilateral selective arteriography of the tumor. The routine sinus x-rays revealed a nasopharyngeal mass and maxillary sinus opacity. There was bowing of the posterior wall of the antrum in tumors with pterygomaxillary space extension, and a mass in the maxillary sinus in tumors with sinus extension.

Tomography of the paranasal sinuses was useful to delineate bony erosion, indicative of tumor involvement in that area (Figure 2). As a rule, sinus opacification was not a reliable indication of tumor extension because adjacent areas of tumor and obstructive sinusitis frequently were indistinguishable.

Selective arteriography was used in seven patients. Extension into the pterygomaxillary space was poorly demonstrated on arteriograms, but was present at the time of primary or later recurrent excisions in all seven patients. Arterial tumor feeding vessels were well visualized in each case (Figure 3) with a markedly dilated internal maxillary artery on the side of the tumor, and usually an enlarged ascending pharyngeal artery. In most cases a small contribution from the contralateral internal maxillary artery was noted.

Operative Blood Loss

Preoperative adjunctive treatment to decrease operative blood loss included the use of methyltestosterone in one patient with known intracranial spread and cryosurgery of the tumor bed in three patients. Neither of these treatments markedly decreased operative blood loss. The use of intraoperative hypotensive anaesthesia in three cases did seem to decrease operative blood loss.

The surgical procedure on the primary tumor in eight cases was an oral-nasal dissection and avulsion technique (Figure 4) with tumor recurrence in six cases. The oral exposure was obtained with the uses of McIvor mouth gag and #8 rubber catheters to retract the palate superiorly, while the nasal exposure was obtained with a nasal speculum.

The tumor was palpated digitally, visualized, and then grasped with pituitary forceps by both nasal and oral routes. The tumor margins were then sharply circumscribed and the tumor avulsed with sharp and blunt dissection from the nasopharynx generally in several pieces. Posterior and anterior nasal packs were then placed for hemostasis.

A transantral procedure combined with the oral-nasal approach was used as the primary surgical excision in the other three patients (Figure 5), and only one patient has had a tumor recurrence. In this procedure, in addition to the oral-nasal procedure described above, a Caldwell-Luc operation is done with ligation of the internal maxillary artery supplying the tumor. Removal of the thin plate of posterior bony antral wall provides visualization of tumor extension into the pterygomaxillary space (Figure 6), and ligation of the internal maxillary artery (Figure 7) reduces blood loss, facilitating complete tumor removal.

Figure 1a. Routine sinus x-ray of a patient with juvenile nasopharyngeal angiofibroma (Water's View).

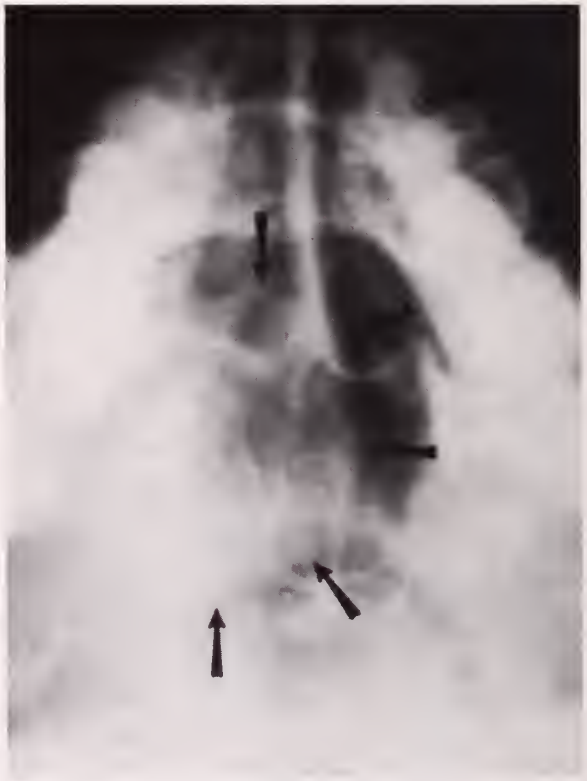

Figure 1b. Routine sinus x-ray of a patient with juvenile nasopharyngeal angiofibroma (Submental Vertex View).

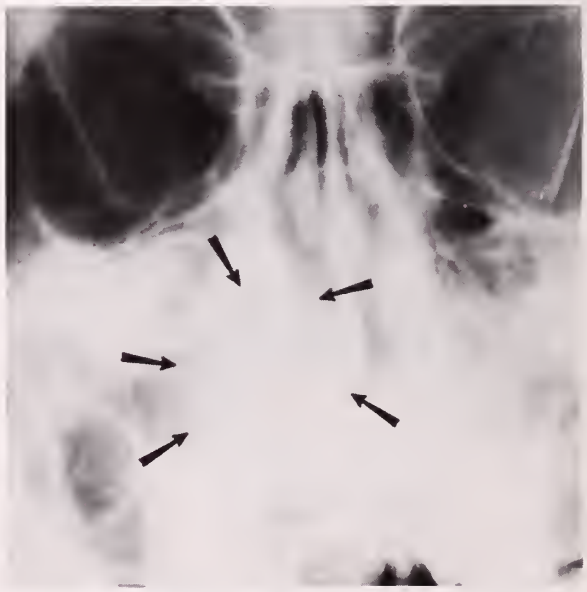

Figure 1c. Routine sinus x-ray of a patient with juvenile nasopharyngeal angiofibroma (Caldwell View).

With extension of the tumor into the pterygomaxillary space, occurring in nine of our patients (82 per cent), an oral-nasal approach alone is inadequate to remove all the tumor. Residual tumor in the pterygomaxillary space accounted for the high recurrence rate following oral-nasal excision alone.

Either an oral-nasal excision combined with a transantral approach or a Weber Ferguson flap was used as the last surgical procedure in eight patients (73 per cent). and all eight patients are now asymptomatic. In these patients the adequate removal of recurrent tumor from the nasopharnyx as well as pterygomaxillary space and sinuses apparently has prevented symptomatic recurrence.

Other surgical procedures used in this series include transpalatal approach and lateral rhinotomy.

The operative blood loss averaged over 22 excisions of both primary and recurrent tumors in this series is 1,700 cc. The blood loss for individual procedures is as shown (Table). Primary virgin tumor excisions with complete tumor removal average 1,100 cc/procedure; recurrent tumor excisions with complete tumor removal averaged 1,200 cc/procedure; and with incomplete tumor excision the operative blood loss was significantly larger, 3,100 cc/procedure.

Figure 1d. Routine sinus x-ray of a patient with juvenile nasopharyngeal angiofibroma (Lateral View).

Figure 2. Lateral tomogram of nasopharynx. Note tumor mass in the nasopharynx and obstructive sphenoid sinusitis.

Figure 3a. Arteriogram of external carotid artery showing dilated internal maxillary artery feeding juvenile nasopharyngeal angiofibroma.

Figure 3b. Arteriogram of external carotid artery showing normal-sized internal maxillary artery feeding juvenile nasopharyngeal angiofibroma.

Tumor recurrence in the nasopharynx after primary excision occurred in seven patients (64 per cent), all with identified tumor extension into the pterygomaxillary space and one with intracranial extension. Four of these patients required a single excision of the recurrent tumor. One patient had eight excisions of the angiofibroma and two cryosurgery treatments. He presently is asymptomatic, but has known intracranial tumor extension with no apparent growth in the past five years.

Presently there are three patients with known residual tumor, one with intracranial extension and two with nasopharynx recurrence. These patients are all asymptomatic with tumor growth apparently arrested. The average age of these patients is presently 25 years. The other eight patients have no evidence of tumor recurrence, although all patients are asymptomatic.

TABLE

Averaged Operative Blood Loss

1. Virgin tumor complete removal	1100cc/procedure
2. Recurrent tumor complete removal	1200cc/procedure
3. Incomplete tumor removal	3100cc/procedure

Averaged Operative Blood Loss/Procedure**

1. Oral-nasal excision	1500cc
2. Transantral combined with oral-nasal excision	1700cc
3. Weber Ferguson excision	3600cc
4. Transpalatal excision	1100cc
5. Lateral Rhinotomy	1600cc

**Average includes virgin, recurrent, and incomplete tumor excisions

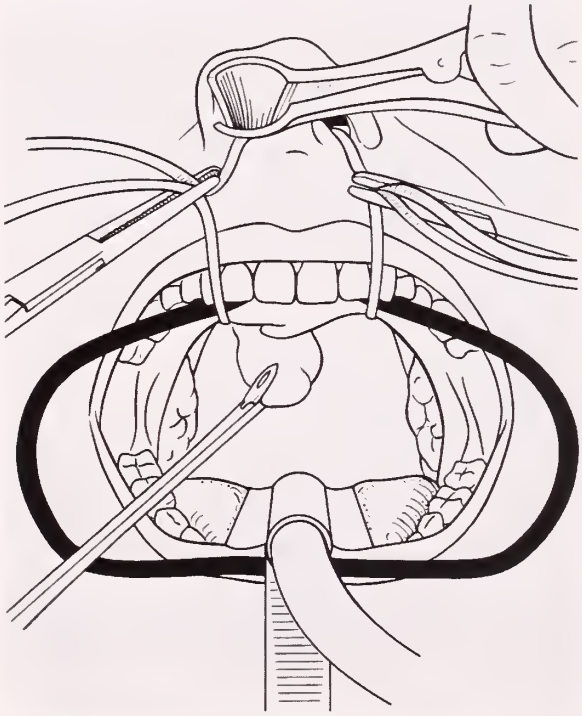

Figure 4. Oral nasal dissection technique.

History

The description of nasal polyps by Hippocrates in the Fourth Century, B.C., included nasopharyngeal angiofibroma-like masses. In the Second Century, A.D., Celsus, a Roman surgeon, surgically removed these tumors by digital mo-

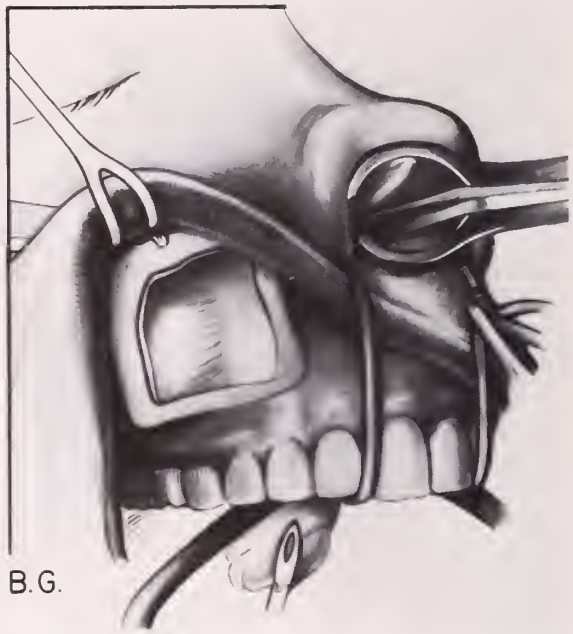

Figure 5. Transantral approach combined with oral nasal dissection technique.

Figure 6. Bowing of posterior maxillary wall from tumor in the pterygomaxillary space.

bilzation and snare techniques, and avulsion of the tumors with forceps. Later, hot iron cautery and injection of sclerosing agents were employed with some success. During the 1700s Deschamps divided nasal polyps into (1) fungus and vascular, (2) mucous and lymphatic, (3) scirrhus and (4) sarcomatous classifications.

In 1847, Chelius described hard "fibrous nasal polyps which commonly occur in persons about the time of puberty:" and 18 years later. Legoves reported the sex predilection of nasopharyngeal angiofibroma-like polyps for young males. The "tendency" for spontaneous tumor regression after sexual maturity was reported by Gosselin in 1876. Two years later, Bensch made a comprehensive report on nasal polyps with the description of nasopharyngeal angiofibroma, but it was not until 1906 that the term "juvenile nasopharyngeal angiofibroma" was coined by Chaveau.

Etiology

There are four major theories concerning the etiology of nasopharyngeal angiofibroma: (1) Verneiul, in 1878, theorized origin from the perichondrium of the cartilage joining the basioccipital bone to the sphenoid. Ossification of these cartilages with puberty destroys the site of origin of the tumor, which supports the observation of spontaneous regression;[1] (2) Brunner, in 1942, theorized the origin from the basilar fasciae or pharyngeal aponeurosis of the superior constrictor muscle that covers the posterior wall and roof of the nasopharynx;[2] (3) Schiff, in 1959, postulated an alteration in the pituitary androgen-estrogen axis with pituitary overactivity stimulating a desmoplastic response in ectopic turbinate-like vascular tissue in the periosteum during growth of the nasopharynx;[3] and (4) Willis, in 1953, suggested nasopharyngeal angiofibromas develop from an inflammatory allergic state much like a polyp.[1]

Figure 7. Visualization of angiofibroma in the pterygomaxillary space and ligation of the internal maxillary artery.

Whereas the induction of a nasopharyngeal angiofibroma in laboratory animals has not been accomplished, Koch's postulates cannot be applied to substantiate any of these theories. The most accepted theory of nasopharyngeal angiofibromas origin is the perichondrium of the developing cranial bones, even though this theory does not explain the male sexual selectivity.

Presentation

The incidence of angiofibroma is 1:5,000 to 1:6,000 new otolaryngological hospital clinic admissions in the United States, and only .05 per cent of all head and neck tumors. Age of onset is the second decade of life, seven to 25 years old. These tumors occur in white, adolescent males and rarely in black males. The rare reports of females with angiofibroma have had suspect chromosomal karyotype abnormalities or disputed tumor histology.

The sex-linked incidence, the symptomatic occurrence during puberty, and the occasional observed post-puberty spontaneous regression is indicative of pituitary hormonal regulatory influences. But still, extensive search for pituitary axis alterations has been fruitless.

Recurrent epistaxis and nasal airway obstruction in an adolescent, white male are the most common clinical presentations. In addition to tumor obstruction of the nasopharynx, tumor extension in to the paranasal sinuses, pterygomaxillary space and middle cranial fossa may produce complaints of: exophthalmus and diplopia, pansinusitis, purulent rhinitis, serous otitis media, headache, nasal speech, external deformity of the cheek and temple region, and anosmia.

Physical examination usually reveals a pink-blue, lobulated, rubbery mass with prominent, superficial vasculature presenting into the nasopharynx. The mucosa rarely is ulcerated, and palpation of the tumor is firm and nontender.

Radiological Evaluation

Holman noted sinus x-rays reveal a mass in the nasopharynx on the lateral view and bowing of the posterior antral wall in more than 80 per cent of cases.[4] This is the most consistent radiological (Figure 8) feature of nasopharyngeal angio-

fibromas, and is characteristic of a slowly-growing mass lined by condensed, eroded, bony posterior wall of the antrum.

This pathognomonic sign rarely is seen with other nasopharyngeal and oropharyngeal lesions. Presence of tumor within the antrum will not show the posterior antral wall bowing. Tomograms of the paranasal sinuses are useful to delineate bony erosion of the sinuses, but adjacent areas of obstructive sinusitis and tumor frequently limit accurate assessments of tumor involvement.

Bilateral selective arteriography of the carotid system is the best definitive procedure for diagnosis and tumor extent. Characteristic enlarged tumor feeding vessels; markedly dilated internal maxillary and ascending pharyngeal arteries and occasionally the sphenoidal artery with an early arterial phase; and homogenous tumor blush persistent into the venous phase are considered radiologically diagnostic of an angiofibroma (Figure 9).

The tumor also may have a vascular anastamosis with branches of the internal carotid arterial system and vertebral artery system, particularly if intracranial extension of the tumor is present. In recurrent angiofibromas the vascular supply is variable, but from the external carotid system. If the external carotid artery was ligated, the vascular supply to a recurrent tumor is more likely to arise from branches of the internal carotid artery or the vertebral artery with retrograde filling of the ligated external carotid artery. This increases the difficulty of hemostasis control during excision of a recurrent tumor and prevents follow-up external carotid arteriograms for recurrence.

Figure 8. Lateral view of sinuses showing anterior bowing of posterior maxillary wall.

Figure 9a. External carotid arteriogram demonstrating arterial phase with tumor blush (Lateral View).

Figure 9b. External carotid arteriogram demonstrating arterial phase with tumor blush (A-P View).

Identification of the tumor feeding vessels is integral for accurate assessment of tumor involvement and surgical approach. Subtraction studies of the tumor are useful (Figure 10). Frequently, at surgery, more extensive tumor extension is found than was indicated by the arteriogram. Tumor extension into the paranasal sinuses, pterygomaxillary space or intracranially is frequent. Tumor in the pterygomaxillary area is poorly demonstrated on arteriograms. Lateral extension of the tumor along the internal maxillary artery was reported in 45 per cent of Christianson's cases, and occurred in 82 per cent of our patients. With carotid arteriography, intracranial extension is noted in 20 per cent of cases at the initial presentation.

At the time of the initial arteriogram, some surgeons advocate the embolization of the tumor bed with radiopaque, impregnated sialastic beads or gelfoam to decrease vascular supply to the tumor. This procedure generally is performed just prior to the surgical excision. Even with strict technique precautions, cases of severe catastrophic complications with embolization, extremity paralysis, paraplegia and quadraplegia have been reported. Admittedly, these are rare complications not seen in all institutions routinely embolizing vascular tumors. But the use of embolization for this benign, locally-aggressive tumor remains controversial in light of these sequellae.

Biopsy of the tumor mass for tissue diagnosis should be avoided as the clinical presentation and appearance, sinus x-ray, and characteristic selective arteriography are considered diagnostic. If tissue diagnosis is necessary, tumor biopsies should be performed in the operating room with the surgeon prepared to prevent excessive blood loss.

Pathology

Nasopharyngeal angiofibromas always originate in the nasopharynx. The most accepted theory of origin is the perichondrium of the developing cranial bones even though this theory does not explain the male sexual selectivity. Although locally aggressive, these tumors do not metastasize, and malignant sarcomatous transformation has been reported only following radiation therapy.[5,6]

Pathologically, these tumors are grossly described as being firm, grey, rubbery nodules. Microscopically, the tumor is composed of fibrocytes scattered among dense bundles of connective tissue. There are many wide, thin-walled

Figure 10a. Subtraction study of external carotid arteriogram showing tumor blush (Lateral View). Note poor demonstration of tumor involvement in the pterygomaxillary space area. This patient had extensive pterygomaxillary space extension noted during surgical removal.

Figure 10b. Subtraction study of external carotid arteriogram showing tumor blush (A-P View).

vessels filled with red blood cells. The vessel walls are not of uniform thickness. Not uncommonly, vessels within the tumor show evidence of vasculitis or thrombosis. No atypical cells are present.

Treatment

Surgical treatment of angiofibromas is the treatment of choice. After thorough evaluation and accurate assessment of tumor involvement by arteriography, the surgical approach for excision of the tumor may be planned. Numerous methods for resection of angiofibromas have been advocated.

Adjunctives to the surgical resection to diminish blood loss include selective embolization of the tumor bed via the internal maxillary artery feeding the tumor, transantral ligation of the internal maxillary artery prior to tumor resection, cryosurgery of the tumor bed, and hypotensive anaesthesia. If intracranial extension is noted, the surgical treatment involves a combined approach via a modified Weber Ferguson incision and an intracranial approach via a frontotemporal flap to deliver the entire tumor en bloc, if possible, through the nasopharynx.

Prior to surgical removal, many surgeons advocate hormonal treatment with exogenous androgens or estrogens. Estrogens have been favored in view of reports demonstrating decreasing tumor vascularity, as shown by pre- and post-treatment arteriography and histology.[7,8,9] There is a tendency of an occasional angiofibroma to undergo complete regression following hormonal manipulation, and for spontaneous regression of the tumors after the age of 25 years—documented with both serial arteriograms and histologic sections.[9,10] The complications of estrogen therapy include increased thromboembolic risk and growth retardation in the adolescent secondary to long bone epihyseal maturation.

External Radiation

Many radiotherapists have advocated the use of external radiation as the primary treatment modality.[11,12] Fitzpatrick reported external radiation of 3,000 to 3,500 rads in 38 patients was unable to control the primary tumor in six patients (16 per cent), who required surgical excision.[11] He also reported one case of a patient who developed a fibrosarcoma after radium-implant treatment of an angiofibroma. Sinha reported seven patients treated with external radiation of 3,000 to 3,500 rads with only one failure requiring surgical salvage and further radiation.[12] Other reports are not as favorable for radiotherapy. Doyle reported no effect of 1,500 rads in four patients, all requiring surgery for cure.[13] Sessions noted external radiation decreased tumor vascularity by 80 per cent; but with no decrease in tumor size, all patients required surgical excision.[14]

There is unanimous agreement that children undergoing radiation therapy have significant increased risk of development of future carcinomas of the thyroid, oropharynx and nasopharynx.[15,16] There are several reported cases of nasopharyngeal carcinoma and sarcomas occurring in the nasopharynx of patients treated with radiotherapy for angiofibromas.[5,6,11] Since the majority of angiofibromas can be surgically controlled, the use of radiotherapy should be restricted to symptomatic patients with progressive intracranial angiofibromas unresponsive to hormonal therapy or resectable by combined otolaryngolic and neurosurgical approach.

Discussion

Juvenile nasopharyngeal angiofibromas are uncommon tumors with a significantly high recurrence rate following primary excision. The primary treatment of these benign juvenile tumors should be surgical. The use of radiotherapy should be reserved only for symptomatic, unresectable, intracranial extension of the tumors. The use of radiotherapy in less aggressive angiofibromas subjects these young patients to an unnecessary increased risk of future carcinomas and sarcomas. Observation or hormone therapy should be reserved only for recurrent asymptomatic tumors. If tumor growth is noted, then surgical excision is paramount.

In this series, pterygomaxillary extension of tumor was noted at surgery in 82 per cent of patients. Selective arteriography poorly delineated the extension found at surgery, but adequately demonstrated the enlarged arterial tumor vessels, notably the internal maxillary artery. Christianson noted lateral extension of angiofibromas to occur in 45 per cent of the patients,[17] and Holman noted bowing of the posterior antral wall on sinus x-rays indicating pterygomaxillary extension in 87 per cent of patients.[4]

The frequent recurrence in the pterygomaxillary space probably represents residual tumor along the enlarged internal maxillary artery. The use of combined oral-nasal and transantral approach permits visualization of the pterygomaxillary space and ligation of the internal maxillary artery. The recognition and removal of tumor in pterygomaxillary space along with the nasopharyngeal tumor can reduce significantly the recurrence of angiofibromas.

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Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

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Viral Hepatitis: An Update

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The characteristics of type A, type B, and type non-A, non-B hepatitis (NANB) are presented. Determinations of serum HBsAg, anti-HBc and more recent clinical trials of HBeAg and anti-HBe can improve significantly the diagnostic accuracy of hepatitis B. Newly-discovered NANB or type C hepatitis appears to be a commonly-encountered hepatitis in post-transfusion patients (about 90 per cent) and about 25 per cent of the hospitalized patients. Unfortunately, no diagnostic tests for this hepatitis are available and, as a result, diagnosis is made by exclusion.

Several investigators fear that there are several types of NANB hepatitis besides type C — type D or even type E may exist. Standard immune serum globulin (ISG) is helpful in preventing type A hepatitis, but in type B hepatitis it is not as protective as hepatitis B immune globulin (HBIG).

HEPATITIS due to viral agents is one of the major infectious diseases yet to be controlled. Because of its diagnostic difficulty, the actual number of cases in the United States probably is at least 10 times the 70,000 reported each year. The disease kills an estimated 3,000 persons in the United States annually.[3]

There are three distinct types of hepatitis:

1. Type A (Virus A), infectious or infective hepatitis, short-incubation period hepatitis, or epidemic jaundice.
2. Type B (Virus B), serum hepatitis, long-incubation hepatitis, or homologous serum jaundice.
3. Type C or Non-A and Non-B hepatitis (NANB).

The differentiating characteristics of hepatitis are summarized in the Table.

Type A Hepatitis

Type A hepatitis or infectious hepatitis is due to type A virus (HAV). It continues to be a public health concern. The disease is prevalent among children in the community. The disease is often difficult to recognize in youngsters because clinical manifestations are generally mild and the children anicteric.

Isolation: Recently, the Center for Disease Control recommended blood precaution for type A viral hepatitis.[1]

Prophylaxis: The prophylactic value of immune serum globulin (ISG) is greatest when given before or soon after exposure. It is not indicated in persons exposed more than two weeks previously. It is given in a dose of 0.02 ml/kg body weight by intramuscular injection.[7]

Laboratory tests: An enzyme-linked immunoabsorbent assay of antibody to hepatitis A (HAV-AB) in combination with hepatitis A antigen (HA Ag) has been developed very recently, but is not available for commercial use at present. Use of this test probably will reveal a lower incidence of hepatitis A because some of the cases of hepatitis previously attributed to type A hepatitis instead may be non-A and non-B (NANB) hepatitis. In Europe, a radioimmunoassay method of detection of antibody to hepatitis A recently has become commercially available.[3]

Type B Hepatitis

It formerly was thought that infections due to virus B (HBV) could be transmitted only by the parenteral routes such as transfusions, infected needles, etc. Today there is evidence to indicate that hepatitis B also is transmitted

TABLE

Characteristics of Type A, Type B, Type Non-A and Non-B (NANB) Hepatitis

Characteristic	*Type A*	*Type B*	*Type Non-A, Non-B*
Agent	Probably picorna-viruses	DNA virus	Unknown
Route of Infection	Predominantly fecal-oral, may be parenteral, urine	Predominantly parenteral, may be oral, sexual, urine	Parenteral
Epidemiology	Sharp outbreaks common	Often sporadic	Sporadic
Incubation Period	15-45 days	50-180 days	15-100 days
Hepatitis Associated Antigen (HBsAg)	Not present	Present	Not present
Chronic Carrier State	Not shown	Yes	Yes
Chronic Hepatic Disease	No	Yes (10% develop either chronic active hepatitis or chronic persistent hepatitis)	Yes
Gamma Globulin Prophylaxis (ISG)	Effective	Possibly effective	Not known (? possibly effective)

through the oral route and through sexual contact.[2] More recently, hepatitis B virus antigen has been identified in virtually all biological fluids: saliva, nasopharyngeal secretions, tears, urine, feces, sweat, semen, breast milk, etc. Hence, it is recommended that all biological fluids from the patient suffering from type B hepatitis be handled with special precautions.

It is found with increasing frequency among users of illicit drugs as well as among staff and patients of hemodialysis units and blood banks.[3]

In 1964, Blumberg[4] discovered an antigen when he found that an antibody in the blood of a transfused hemophilic patient from New York reacted with an antigen found in the serum of an Australian aborigine. Blumberg called the antigen, "Australia antigen," which subsequently was known as "Hepatitis Associated Antigen" or HAA.

HAA resides only on the surface of the virus, hence its current designation, hepatitis B surface antigen (HBsAg). The virus also has an internal component or core which is known as hepatitis B core antigen (HBcAg). The corresponding antibodies are known as anti-HBs and anti-HBc. HBsAg appears to have a common specificity defined as *a* and at least one of each of two "allelic" subspecificities, letters *d* or *y* and letters *w* or *r*. Thus there are four different subtypes of HBsAg: *adw*, *ayw*, *adr* and *ayr*.[2] All these subtypes have an unequal geographic distribution throughout the world.

In 1972, another antigenic determinant was described, called *e* antigen.[5] Unlike *a*, *d*, *y*, *w* and *r* determinants, which appear on the same particle, *e* determinant appears to be on a different particle. The *e* antigen is thought to occur more commonly in serum of chronic HBsAg carriers with active liver disease than in healthy carriers.

The cores of hepatitis B viruses appear to be formed in the hepatic cells' nuclei[2] (Figure 1). The cores contain DNA polymerase, a virus specific enzyme and probably a double-stranded DNA. They are released into the cytoplasm where they are ensheathed by HBsAg containing coat material, forming the complete B viruses or Dane-particles (42 nm diameter).[6] There are two kinds of coat materials: spheres (22 nm diameter) and tubular forms (22 x 200 nm).[5] A large excess of coat material is produced and released into the blood stream without the core component (about 200 coat materials per one Dane-particle) (Figures 1 and 2). The Dane-particle may be the actual agent for serum hepatitis.

The clinical and serological course of acute hepatitis B in the adult patient[2] is illustrated in Figure 3. The disease usually starts with fatigue, anorexia, and sometimes myalgia and abdominal discomfort. HBsAg usually becomes detectable as early as 12 days or as late as 24 weeks after exposure. It is detectable prior to the appearance of clinical symptoms and abnormal laboratory findings like raised SGPT or bilirubin levels.

Shortly after the appearance of antigen, a transient level of specific DNA polymerase is detected in the blood. It indicates the presence of infectious virus in the patient.

From two days to two weeks after the appearance of HBsAg, transaminase (SGPT) and bilirubin levels begin to rise, and clinical symptoms appear. When the patient becomes clinically ill, the serum HBsAg and anti-HBs

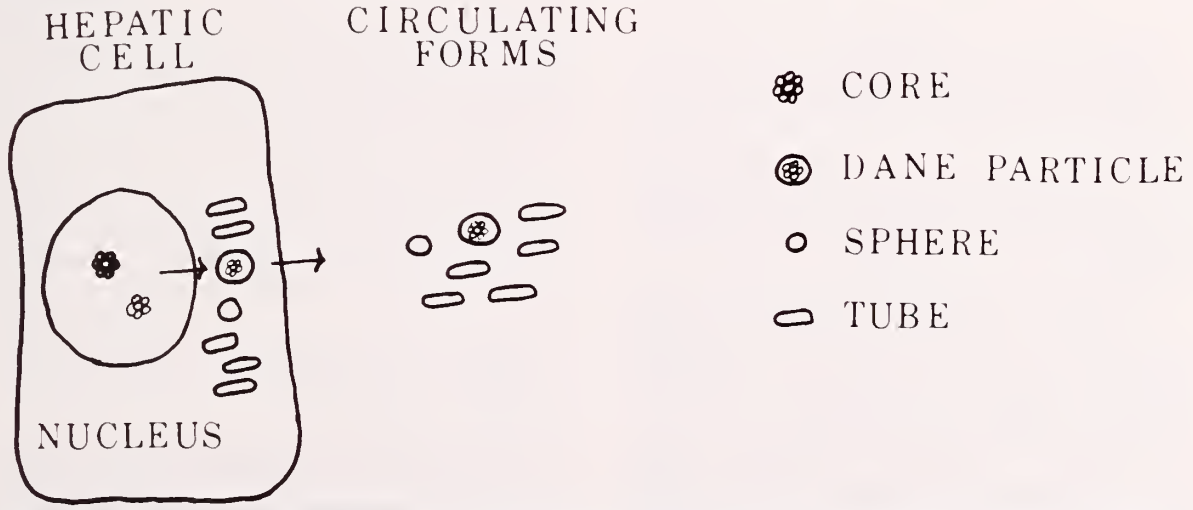

Figure 1. Schematic presentation of formation of hepatitis B viruses in hepatic cell and their circulating forms.

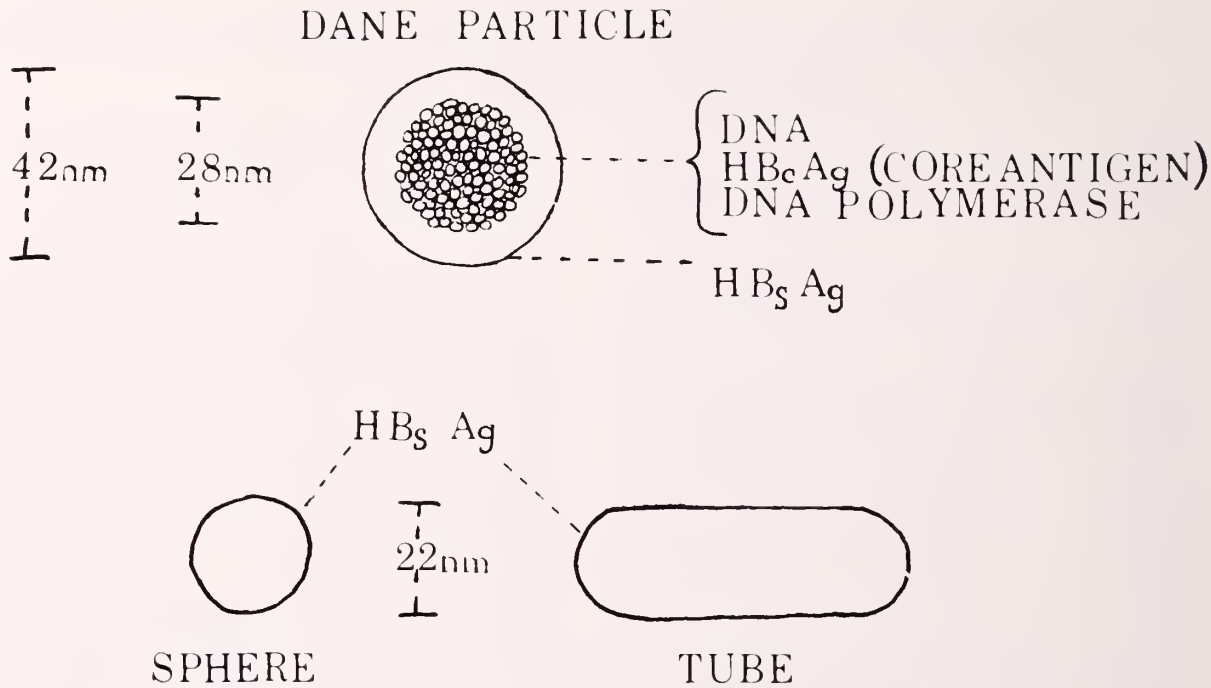

Figure 2. Schematic presentation of Dane particle, sphere and tube.

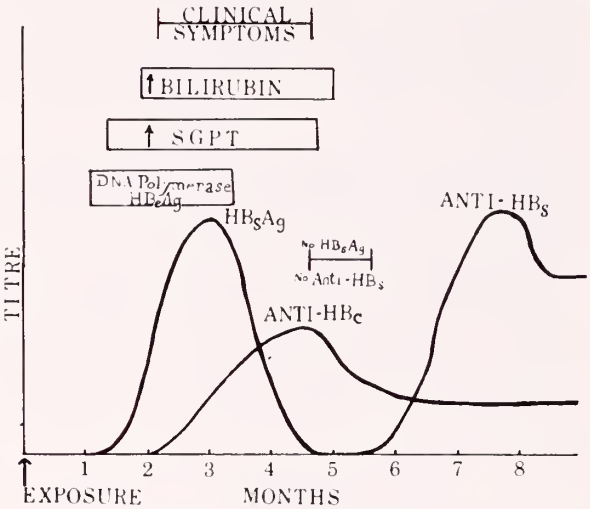

Figure 3. Clinical and serological course of acute hepatitis B.

(antibody) levels may be undetectable; thus, it is very important to test for serum HBsAg as soon as the diagnosis of hepatitis B is clinically suspected.

Anti-HBc (antibody to core antigen *c*) appears while HBsAg is still present. When HBsAg has disappeared, anti-HBc is often the only hepatitis B virus marker in the blood, and it may be present together with anti-HBs in the late convalescence period. Hence, during this period when HBsAg has disappeared, the anti-HBc assays can serve as a tool for the diagnosis of hepatitis B virus infection.

An RIA for anti-HBc recently has been approved by the FDA and is now being sold as "CORAB" by Abbott Laboratories. HBeAg assay also can improve significantly the diagnostic accuracy. A radiometric assay of HBeAg and anti-HBe presently is undergoing clinical trials in the United States.[3]

HBsAg Persists

In some hepatitis patients, the HBsAg persists for more than three months even though the patient shows clinical signs of improvement. This indicates that the patient may be either developing a chronic hepatitis or becoming a carrier. Because of this, it is recommended that tests for HBsAg should be performed about every 14 days in the hepatitis patient until the tests become negative or until it is obvious that the antigenemia is chronic.[3]

Patients with persistent or intermittent antigenemia should be checked for serum HBsAg at six- to 12-month intervals.[3] Antibody to HBsAg (anti-HBs) usually is detectable in blood after the disappearance of HBsAg, particularly during the middle-to-late period of convalescence. The presence of this antibody indicates previous exposure to hepatitis B virus and probably is immune to rechallenge.

A surprisingly high incidence of significant antibody titres in the general population (about 15 per cent) suggests that type B infection is common in the United States. Should persons

with positive antibody titres to HBsAg donate blood? Transfusion of anti-HBs blood has revealed no greater risk of resultant hepatitis than non anti-HBs blood.[7]

Isolation: Blood precaution is recommended by the Center for Disease Control.[1]

Prophylaxis: A single acute exposure to a relatively large inoculum of hepatitis B virus, such as an accidental needle-stick when the needle had been used in a patient with positive HBsAg, mucosal exposure or oral ingestion (pipetting) of blood known to contain HBsAg, needs administration of hepatitis B immune globulin (HBIG) intramuscularly. It has been reported that persons who have been exposed acutely to HBsAg associated with HBeAg are at significant risk of having hepatitis B.[13, 14]

The first dose of 0.06 ml/kg of body weight (usual adult dose three to five ml) HBIG should be given as soon as possible after exposure (preferably within seven days) and repeated 28 to 30 days after exposure. Standard immune serum globulin (ISG) is helpful, particularly those manufactured after 1972 containing adequate level of anti-HBs, but is not as protective as HBIG.[8] The dose of ISG is the same as HBIG.

In the following conditions HBIG injections are recommended: 1. spouse exposed to partner with hepatitis B, 2. neonate of mother who is chronic HBsAg carrier, and 3. staff of renal dialysis units.

Recently, researchers have been very enthusiastic about formalin-treated and synthetic vaccine of HBV.[10,11]

Hepatitis (HBsAg) Carrier: A carrier with normal liver function tests should be advised to take appropriate precautions when he or she is engaged in normal occupations, e.g., handwashing, personal hygiene, double-glove techniques, etc. As of today, there are no definite regulations or standards which prohibit health-care workers from engaging in their normal occupations.[12] He or she, however, is excluded from donating blood.[7]

Non-A, Non-B Hepatitis (NANB) or Hepatitis C

Newly-recognized NANB hepatitis appears to be a commonly-encountered nosocomial disease problem, perhaps accounting for 25 per cent of the hepatitis in hospitalized patients.[3] It is estimated that about 90 per cent of post-transfusion hepatitis in the United States is due to this agent(s).[9] Little is known about the etiological agent(s) of NANB hepatitis.

Currently, a blood-associated transmission mechanism resembling that of type B hepatitis has been suspected. Documented evidence of a few needle-stick transmissions also has been reported; however, there is a doubt about fecal-oral route of transmission. The incidence of NANB hepatitis in dialysis patients is about five to fifteen per cent. The disease may produce chronic antigenemic carrier state and chronic active hepatitis.[9] This hepatitis is especially hazardous because there is no serological test to identify the carrier.

The diagnosis of NANB hepatitis is done by exclusion of other known causes of hepatitis by appropriate laboratory tests. Currently, attempts are under way to find a hepatitis "C" antigen. At this time, no tests are available for detection of NANB hepatitis.

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Drug Program Helps Contain War Neuroses

War veterans gained dramatic relief from the mental tortures of nightmarish reliving of their war experiences through a new drug treatment program reported in an American Medical Association publication.

Traumatic war neurosis may become a chronic, debilitating condition that resists treatment, George L. Hogben, M. D., psychiatrist with Mount Sinai School of Medicine, City University of New York, and the Bronx Veterans Administration Center, pointed out.

Doctor Hogben reported recently in *Archives of General Psychiatry* on treating five veterans from World War II through the Korean War to Viet Nam for war neurosis ranging from five to 30 years' duration.

All five had been treated with psychotherapy and with medications of various sorts, to no avail. Their mental suffering continued.

The Bronx VA Center began using a drug called phenelzine sulfate, trade name Nardil. There was immediate improvement in all five, he said.

The long-term outcome of traumatic war neurosis treated by phenelzine is uncertain, Doctor Hogben pointed out. Patients who stopped taking the drug against advice showed severe recurrences.

Medical Grand Rounds

From the West Virginia University Medical Center

Edited By
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Diabetes Mellitus: Classification And New Ideas About Possible Etiology

Discussants:
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IRMA H. ULLRICH, M. D.
Associate Professor of Medicine, Section of Endocrinology and Metabolism

The new classification for disorders of glucose tolerance is reviewed. Consideration of the infectious and autoimmune theories of pathogenesis of Type I diabetes are compared to the receptor abnormalities which seem to be of more importance in Type II diabetes. Central nervous system aspects may be relevant to the development or severity of the complications of diabetes.

Mr. Day:

Classification of Diabetes

With the increasing awareness that the diabetic syndrome has many different clinical manifestations and etiologic relationships, the need for a classification system which expresses the heterogeneity of diabetes in uniform and precise manner became apparent. With this in mind, the National Diabetes Data Group published a paper[1] outlining a uniform classification of diabetes along with diagnostic criteria. In this paper they incorporated many of the suggestions and recommendations made by a previous international work-group.

The diagnosis of diabetes mellitus is to be made if a patient meets any one of three criteria. The first criterion has two conditions: the unequivocal elevation of plasma glucose, and the clinical manifestations of diabetes such as polyuria, polydipsia, ketonuria and rapid weight loss. If these symptoms and signs are not present, then quantitative measurements of plasma glucose under standardized conditions are to be used to make the diagnosis. These measurements are the basis of the next two criteria.

The second criterion is elevation of the fasting plasma glucose on more than one occasion of greater than 140 mg/dl. If the fasting plasma glucose is less than 140 mg/dl then the third criterion, elevation of plasma glucose values on an oral glucose tolerance test (OGTT) on more than one occasion, will make the diagnosis. The sampling times in the OGTT are fasting and at one-half-hour intervals for two hours; there is an additional sample at one and one-half hours.

Values of greater than 200 mg/dl at the two-hour and another time point are needed to place the patient into the diabetic category. An OGTT is not needed to make the diagnosis if the second criterion is met as 90 per cent of patients with fasting plasma glucoses of >140 mg/dl will have diabetic values on an OGTT. Once the above criteria are met, the patient can be placed into one of three types of diabetes according to other clinical data.

Types of Diabetes

Type I diabetes, Insulin-Dependent Diabetes Mellitus (IDDM) was known in the past as juvenile-onset or ketosis-prone diabetes. Patients in this category present with abrupt onset of symptoms, ketosis and insulinopenia. The key

feature of this type of diabetes is dependence on insulin to sustain life and prevent ketosis.

Type II or Noninsulin-Dependent Diabetes Mellitus (NIDDM), known previously as adult-onset or ketosis-resistant diabetes, contains patients who present with minimal or no symptoms. Sixty to 90 per cent of these patients are obese. They are not insulin dependent or ketosis prone; they may require insulin for the control of symptomatic or persistent hyperglycemia, but not to prevent ketosis. Type II diabetics may develop ketosis, however, if subjected to a severe stress or illness, but usually will revert back to their noninsulin-dependent state once the stress or illness is over.

The third type of diabetes, secondary diabetes, has, as its name implies, some etiologic relationship to some other disease or process. Those with a known etiologic relationship include pancreatic disease or removal, endocrine diseases such as Cushing's syndrome, acromegaly and glucagonoma, and the administration of certain drugs or hormones. Those with suspected relationships are diabetes associated with defects of insulin receptors, with genetic syndromes, or with certain environmental and clinical conditions such as those found in malnourished populations.

If a person has a response to the OGTT between normal and diabetic, he falls into the category of Impaired Glucose Tolerance (IGT). People in this class are at a higher risk for developing diabetes in that one to five per cent will proceed to overt clinical diabetes per year. It is thought that IGT may represent a stage in the natural history of NIDDM and that an insulinopenic response to an OGTT is predictive of development of frank diabetes.

Gestational Diabetes Mellitus (GDM) is a special type of diabetes limited to those women who have the onset or recognition of diabetes or IGT during pregnancy. After the pregnancy terminates, the woman must be reclassified according to her postpartum plasma glucose levels, with the majority returning to normal glucose tolerance. The diagnosis of GDM is made using the criteria outlined by O'Sullivan and Mahan in 1964.[2]

Two categories are set aside for those people with normal glucose tolerance at present but who are at greater risk for diabetes than the general population. The first category, Previous Abnormal Glucose Tolerance, includes people who at one time in their life had abnormal glucose tolerance. Gestational diabetics, obese subjects who have lost weight, and people who were diabetic with illness, surgery or trauma are in this group.

The second category, Potential Abnormal Glucose Tolerance, is a statistical class only because of the possible psychosocial or economic sanctions that may be placed against people in this class. This class includes persons who have never demonstrated abnormal glucose tolerance but who are at increased risk for the disease. Those who are at increased risk for IDDM are people with islet cell antibodies and siblings (especially monozygotic twins) or offspring of an insulin-dependent diabetic. At a greater risk for NIDDM are first-degree relatives of a noninsulin-dependent diabetic, a mother of a neonate weighing nine pounds, obese individuals, and certain racial or ethnic groups.

The above classification is important because it not only supplies a uniform terminology for research in the field of diabetes but it also demonstrates the marked heterogeneity of diabetes. This heterogeneity often is obscured by the similar manifestations of diabetic syndromes, but these syndromes are produced by different genetic and environmental factors, and have different natural histories, pathogeneses and responses to therapy.

Doctor Ullrich:

Type I

When the term, "diabetic," is used, the patient who most frequently comes to mind is the Type I patient—the young, ketosis-prone, insulin-dependent patient. This seems peculiar because, in fact, this group of diabetics accounts for only about 10 per cent of the total number of persons afflicted with diabetes. Perhaps the attention accorded this group is due to the dramatic presentation and the devastating complications which affect people otherwise in their most productive years.

Islet changes:

If an individual with recent onset of diabetes dies, there are characteristic changes found in the pancreas. The islets may be of variable size —with even some areas of hypertrophy, but most of the islets are atrophic.[3]

Normally, 60-80 per cent of cells of the islets are β cells, those producing insulin, with 20-40 per cent alpha cells-glucagon cells, and a few somatostatin and pancreatic polypeptide cells. In diabetic pancreas the proportional distribution of cell type is altered. About two thirds of the few remaining cells are glucagon cells, and the rest are somatostatin cells. However, some β cells

may persist in patients who have had diabetes for many years. The presence of some insulin secretion, as measured by C peptide levels, is related to survival of some β cells. Lymphocytic infiltration of the islets was described at the beginning of the century. This "insulitis" was rediscovered in 1958 and was found to be a specific lesion found only in insulin-dependent diabetics who died early in the course of their disease. It has not been observed in Type II diabetic subjects.

The frequency with which the insulitis is noted depends on the duration of the disease, seems to be limited to the β cells, and disappears once they are destroyed. The islets essentially are replaced by fibrous tissue, and may be difficult to find on microscopic sections.

The observations of an inflammatory infiltrate in the islets led to development of hypotheses regarding the etiology. The two most developed theories revolve around either an infectious etiology or an autoimmune reaction to the β cells in subjects with a genetic predisposition.

Infectious Theory

I'll consider the infectious theory first. There is a seasonal trend of Type I diabetes with more cases identified in the fall and winter. This seasonal variation is inverted in the southern hemisphere, but still most cases occur in winter and fewest in spring and summer.[4] This pattern of onset during the coldest months has been observed in the United States, Denmark, Sweden, Great Britain and Chile.

Several specific viral infections have been noted to be associated temporally with the development of diabetes.[5] Mumps virus occasionally is implicated, but this is so unusual that it must be a very special strain of mumps virus or an extremely susceptible individual in whom it occurs.

Intrauterine rubella infection might be another cause of diabetes. In this circumstance, the contributing role of the other congenital malformations is unclear. There is, however, an increased frequency of glucose intolerance or frank diabetes in children with the congenital rubella syndrome. Chronic, persistent rubella virus infection of the pancreatic tissue of affected infants has been described.

A landmark case described by Yoon and colleagues[6] of Coxsackie B4 virus infection appeared to fulfill Koch's postulates. A 10-year-old boy died of meningoencephalitis and diabetes of recent onset. The virus was isolated from his pancreas at autopsy. Subsequent injection of the viral isolate into a susceptible strain of mice resulted in inflammation of the pancreatic islets. Furthermore, the viral antigen was found within the islets. In this case, the evidence is fairly convincing that Coxsackie B4 virus was in fact the etiologic agent for the patient's diabetes. In other reported cases, the responsible agent hasn't been so clearly identified.

Venezuelan equine encephalitis virus also has been postulated to be responsible for some cases of diabetes.

Pancreatitis and diabetes have been reported in man in association with infectious mononucleosis.

Cytomegalovirus has a peculiar attraction for beta cells, and this makes this organism a candidate for causing diabetes.

Animal Model of Diabetes

Today, few people die of acute diabetes, so viral isolation from the pancreas often is not possible. This fact makes an animal model most desirable.

Such a model for diabetes was developed by Craighead and McLane in the late 1960s.[7]

The encephalomyocarditis (EMC) virus was used to infect susceptible strains of mice. This virus is similar to group B coxsackie virus.

Subcutaneous inoculation of the virus results in viral multiplication in the pancreatic islets. As β cells are infected, there is a rapid decrease in the pancreatic content of insulin and development of hyperglycemia. An infiltration of mononuclear cells develops in and around the islets, but is transient, usually seen only during the first two weeks of infection although the virus itself may persist in the islets for another week.

By the ninth day after inoculation the diabetic state has been established.

Following recovery, a range of abnormalities in glucose tolerance is seen. Some animals die of ketoacidoses and, at autopsy, have no detectable insulin in their pancreas. Some have chronic hyperglycemia, and others have a normal fasting glucose, but abnormal response to a glucose load.

There are several known factors which influence the susceptibility of β cells to EMC virus. In infected, castrate males, diabetes does not develop unless androgens are administered. Animals treated with glucocorticoids develop more severe lesions in the islets and worse hyperglycemia. Animals which are obese—either genetically or due to hypothalamic lesions which cause hyperphagia—develop more severe hyperglycemia than control animals. Obesity may, in

fact, make animals from strains usually resistant to the virus susceptible to its pancreatic effects.

The possible contribution of autoimmune phenomena also has been considered. If animals are irradiated before inoculation, neither insulitis nor hyperglycemia develops. Athymic mice do not develop disease. Curiously, however, transfer of spleen cells from infected normal mice to uninfected athymic mice results in hyperglycemia.

These observations obviously suggest that in this animal model there is a significant contribution of the host to the development of diabetes.

Studies regarding the genetic susceptibility of these mice have suggested that there may be a specific receptor for the virus on the beta cell. Other workers have postulated that alterations in the production or effect of interferon by the beta cells may change the outcome of infection.

These animal studies are of special interest and may be of importance in human diabetes as well. The likelihood is that at least some cases of diabetes are due to viral infections of one kind or another. Pyke and his colleagues have studied 132 pairs of identical twins in which one had Type 1 diabetes.[8] Seventy-three of the twins were concordant for diabetes, an obvious increase in the prevalence of diabetes compared to the normal population. There also is a 26-fold increase in diabetes in siblings of Type 1 diabetics.[9] Nevertheless, even in identical twins who were followed for prolonged periods, as many as 45 per cent of second twins did not develop diabetes.

These findings suggest that although IDDM is not entirely due to genetic causes, there nevertheless is a genetic predisposition to develop diabetes in certain families. Other endocrine disorders also are associated with the diabetes, and include Graves' and Hashimoto's thyroid diseases, Addison's disease, idiopathic hypoparathyroidism, and hypogonadism and pernicious anemia. Many of these disorders are believed to have an autoimmune basis, and organ-specific antibodies frequently are found.

Abnormalities in Immunity

Several abnormalities in both cell-mediated immunity and production of autoantibodies have been described in Type I diabetes.[10]

Abnormalities in leukocyte migration inhibition have been found in over 50 per cent of insulin-requiring diabetics using either porcine or human pancreatic homogenate or insulinoma tissue as the antigen. These are more prevalent in those with recent onset of diabetes. This cell-mediated activity appears to be organ specific, but the antigen apparently is not insulin.

Two kinds of circulating antibodies which react with pancreatic islets have been demonstrated. One is an antibody to a cytoplasmic component of islet cells; the other reacts against the surfaces of the islet cell.[11]

Antibodies which specifically are toxic to B lymphocytes also have been found in up to 55 per cent of IDDMs who were tested within 12 months of diagnosis.[12] They were absent in those tested who had diabetes for over 10 years. The similarity between the islet cell antibodies and these lymphocytotoxic antibodies suggests that they may be part of a generalized autoimmune response—perhaps stimulated by a virus or other environmental agent or chemical. Antibodies to islet tissue are found in up to 85 per cent of patients with newly-diagnosed IDDM compared to less than one per cent of a control population. The percentage of patients with these antibodies decreases with duration of diabetes so that after two years less than 25 per cent retains the antibody.

Incubation of cultured rat islet cells with serum containing islet cell surface antibody (ICSA) and complement resulted in lysis of the β cells. The serum which contained only the cytoplasmic antibody (ICA) showed no more destruction of the rat cells than a control serum. These antibodies were found in increased frequency in first-degree relatives of IDDMs, and had the same cytotoxic effects *in vitro*. The presence of cytotoxic ICSA in nondiabetic relatives and their absence in some patients with IDDM suggest that ICSA is not sufficient for the development of diabetes. These antibodies may, however, serve as a marker to identify persons who are at greater risk to develop diabetes.

Genetics

Studies of the genetic makeup of Type I diabetics have indicated that there is genetic heterogeneity. There appears, however, to be at least two distinct genetic types—one associated with HLA B8 and the other with HLA B15.[13]

The HLA B8 form of the disease is associated with an increased prevalence of islet cell autoantibodies and altered cell-mediated immunity. These subjects also may be less prone to develop antibodies to exogenous insulin, but there appears to be a more specific Gm phenotype for development of these antibodies.[14]

The B15 type is less well characterized, but appears to be associated with autoantibodies, and

diabetes seems to have an earlier onset than the B8 variety.

A third variety, the B8 and B15 heterozygote, has an increased familial incidence, earliest onset of diabetes, and most islet-cell damage.

Other studies have not found an increased frequency of these particular HLA types in Type I diabetics.

What do these genetic studies mean? Some workers have suggested that those with Type I diabetes have inherited a susceptibility to develop diabetes if exposed to the proper agent, perhaps a virus or an environmental contaminant. This may involve a specific chromosomal area. Perhaps the immune response genes ultimately will be the most important in this respect.

It also can be said, however, that the remainder of the genetic makeup and environmental and nutritional factors affect the clinical expression and severity of disease. Genetic studies may identify those who will be more likely to develop diabetes and allow modification of these other factors.

Type II

I'd like next to discuss some of the abnormalities found in patients with Type II diabetes.

In order to understand some of the problems, I'd like to review some of the physiology involved in the secretion and action of insulin.

Insulin is synthesized in the pancreas as proinsulin. This large molecule is cleaved into insulin and C-peptide prior to secretion. Proinsulin has less than five per cent of the biological activity of insulin, so an abnormality in the cleaving enzyme or alterations in the amino acids at the specific point of cleavage might be a cause of diabetes.

Abnormal Insulins:

A family with abnormally-high levels of proinsulin was described by Gabbay and his colleagues.[15] This abnormality was inherited as an autosomal dominant trait. Family members with this abnormality had no symptoms or abnormalities in glucose metabolism.

Another abnormality in insulin structure was reported by Givens *et al.*[16] They described a 51-year-old male with diabetes and elevated levels of insulin. The patient was sensitive to exogenous insulin, and had no abnormalities of intracellular glucose metabolism. Studies in which the patient's insulin was incubated with rat fat cells showed that it had a markedly decreased ability to bind to insulin receptors. Analysis of the amino acid sequence of his insulin suggested that he had a substitution of leucine for phenylalanine at position 24 or 25 of the beta chain. These positions are part of the active receptor-binding region of insulin.

Unlike Type I patients who are insulin deficient, Type II patients may have elevated levels of circulating insulin despite having glucose intolerance or frank diabetes. This phenomenon has been termed insulin resistance . . . that is, a given amount of insulin has less than the expected biological effect.

Pre-Receptor Defects

Two groups of patients with circulating antibodies to the insulin receptor have been described. One group has additional autoimmune disorders such as lupus erythematosus; the other has hirsutism and accelerated growth.[17]

After insulin reaches the circulation, it may be inactivated by circulating anti-insulin antibodies. This may be a problem in some insulin-dependent diabetics who are taking insulin. Increased levels of counter-regulatory hormones such as growth hormone, cortisol or glucagon may affect insulin activity. All of these abnormalities of insulin secretion or binding have been termed pre-receptor.

Although these abnormalities are interesting and give insight into the factor regulating insulin secretion and biologic activity, they certainly are not present in most Type II diabetics. Receptor or postreceptor defects are thought to be of some importance.

In order for insulin to have an effect on cells, it must bind to a receptor on the cell surface. Recent work characterizing the chemical nature of the insulin receptor has suggested that it is similar to immunoglobulin molecules. Two large and two small subunits are linked with disulfide bonds, similar to the heavy and light chains of immunoglobulins.[18] After insulin binds to the receptor, it activates intracellular processes which increase glucose uptake and metabolism. The insulin-receptor complex is internalized and found localized to lysozymes where it is probably degraded. Some insulin has been found in the nucleus, but its function there is not known.

There are far more insulin receptors on the cell surface than are necesary for full biological effect. Occupancy of only 10 per cent of insulin receptors results in full activation of the cell.

Receptor Defects

Abnormalities at the receptor level may be responsible for abnormal glucose metabolism. If the number of receptors is decreased or their

ability to bind insulin (receptor affinity) is less than normal, a higher level of circulating insulin may be required for the same biologic effect.

In order to study whether the cellular defect is at the receptor level or beyond it, large amounts of insulin are infused or added to the incubation medium.[19] Plasma insulin levels reach 10,000 u U/ml, compared to the normal level of less than 100 u U/ml. If such large amounts of insulin are used, in theory enough receptors would be occupied so the full biological effect would be achieved. If the problem is at the receptor level (decreased sensitivity), the intracellular process such as glucose disposal would be normal. On the other hand, if there is a postreceptor defect (decreased responsiveness), despite receptor occupation, there will be less than the maximal response. An individual may have a combined defect with both the receptor and postreceptor processes being abnormal.

Receptors have been studied extensively in obese subjects. These results also are pertinent to a discussion of diabetes because most Type II diabetics are also obese. Obese subjects commonly have elevated levels of insulin, and a decreased number of receptors has been described. There has been some controversy about the meaning of this finding of decreased receptor numbers. Some workers have found a down-regulation of receptors — that is, if insulin levels are elevated for whatever reason, receptors would decrease. It is possible to increase receptors in obese subjects by weight loss, or even brief fasting, before significant weight loss occurs. Exercise in obese, nondiabetic subjects also decreases insulin levels and increases receptors.

Chlorpropamide, an oral hypoglycemic agent, also has been noted to improve glucose tolerance while decreasing circulating insulin levels. Concomitant with this effect is an increase in insulin receptors which may account for some of the extra pancreatic effect of the sulfonylurea agents. Sulfonylureas may decrease the degradations of receptors while synthesis rates remain unchanged.[20]

Predictability of Defects

Among obese persons there is heterogeneity in receptor or postreceptor defects; which defect is prominent is predictable by measuring the fasting plasma insulin level. Those with higher levels of insulin not only had less insulin receptors on isolated adipocytes, but also were much more likely to have a postreceptor defect in glucose disposal rate as well. These postreceptor defects also appear to be reversible with weight loss.

As I've already mentioned, in patients with Type II diabetes, a deficiency of insulin does not account for diabetes as it does in those with Type I disease. In fact, circulating insulin levels are elevated in many patients with Type II diabetes. The majority of this type of diabetic is obese as well, so it might be expected that many of the abnormalities found in obese people also would be found in these diabetics.

The elevated or normal insulin levels in such patients in the presence of hyperglycemia clearly indicates an insulin-resistant state. In subjects with fasting hyperglycemia, abnormalities in both receptor and postreceptor processes have been described. The decrease is in the number of insulin receptors; the affinity of the receptors for insulin is normal. In more severe glucose intolerance, most of the resistance is due to postreceptor abnormalities.

In summary, investigations suggest that in patients with mildly impaired glucose tolerance defects at the receptor level predominate. With more severe impairment or frank diabetes, abnormalities both at the receptor and postreceptor are found, with the postreceptor defect probably most important. These abnormalities appear to be specific for Type II diabetics.

Genetics

It has been known for many years that diabetes appears to "run in families."

Recalling Pyke's twin studies, in the Type II diabetic identical twins, 87 per cent of the second twin also had Type II diabetes. This is a marked increase compared to Type I twins. These pairs have been followed carefully for prolonged periods, so duration of observation probably is not a significant problem. A specific HLA type has not been identified.

These British workers have made another interesting observation in Type II diabetics. It was noted fortuitously that some patients who were taking chlorpropamide for control of their diabetes developed facial flushing after they drank alcohol. These investigators did systematic testing of NIDDMs as follows: 250 mg of chlorpropamide was given orally, followed in 12 hours by 40 ml of sherry. Facial temperature is measured 90 minutes before and 40 minutes after the alcohol.

They found that about 60 per cent of all Type II diabetics had a positive chlorpropamide alcohol flush (CPAF) visually and an increase

in facial temperature. The flush was inherited as an autosomal dominant and was not always associated with glucose intolerance. They then examined the frequency of complication in these patients and correlated it with flushing.

Of 291 patients examined, 191 were CPAF positive. The age at onset as well as the duration of diabetes was similar in those with or without the flush. Retinopathy was graded by direct ophthalmoscopy as absent, mild or severe. Background retinopathy which impaired vision and all proliferative retinopathy were classified as severe.

Retinopathy was both more common and more severe in the patients without a flush. Fifty-four per cent of the negative group had retinopathy compared to 25 per cent of those who were positive. Severe retinopathy was found in 28 per cent of those who were negative, but only four per cent of those who were positive.

These results suggest that the tendency to develop retinopathy is inherited. This genetic predisposition apparently is not sufficient to develop retinopathy because retinopathy is not seen in nondiabetics. Once diabetes is present, however, the abnormality may be a marker which identifies those who are more likely to develop these complications.

In some patients who have a flush, the flush may be blocked by the administration of indomethacin.[22]

Forty-one patients with NIDDM who had a flush were classified according to the degree of large vessel disease — either ischemic heart disease or claudication. They were then tested taking 100 mg of indomethacin orally 75 minutes before the sherry.

The degree of temperature rise after chlorpropamide and alcohol was greater in those with complications. In those patients with complications, their rise in temperature was not blocked by indocin.

Implications

Are these observations merely interesting but without any clinical relevance?

If they are confirmed, such studies, at very least, may identify a particular group of diabetics who are at great risk of developing complications. Improved control of the glucose abnormalities in these patients may be far more beneficial than in those who are not so susceptible to complications.

The other study observations of possible importance would be in consideration of the etiology of both diabetes and its complications.

Claude Bernard noted that if he produced a lesion in the floor of the fourth ventricle of unanesthesized rabbits they developed transient hyperglycemia and glycosuria. This is known as picûre diabetes. He also noted that large doses of morphine also produced diabetes.[8]

These two observations and those of chlorpropamide-alcohol flushing may be related to recent knowledge of enkephalins. Infusion of β endorphin results in facial flushing which may be blocked with opiate antagonists. The chlorpropamide-alcohol flush may be blocked with naloxone in some patients or reproduced by infusion of an enkephalin analague.[23] These observations suggest that there may be some central nervous system contribution to the glucose intolerance of some diabetics . . . perhaps an increased sensitivity or overproduction of enkephalins.

The findings regarding indomethacin obviously suggest that prostaglandins or prostacyclins are important in the genesis of complications. Their relationship to enkephalins is not clear.

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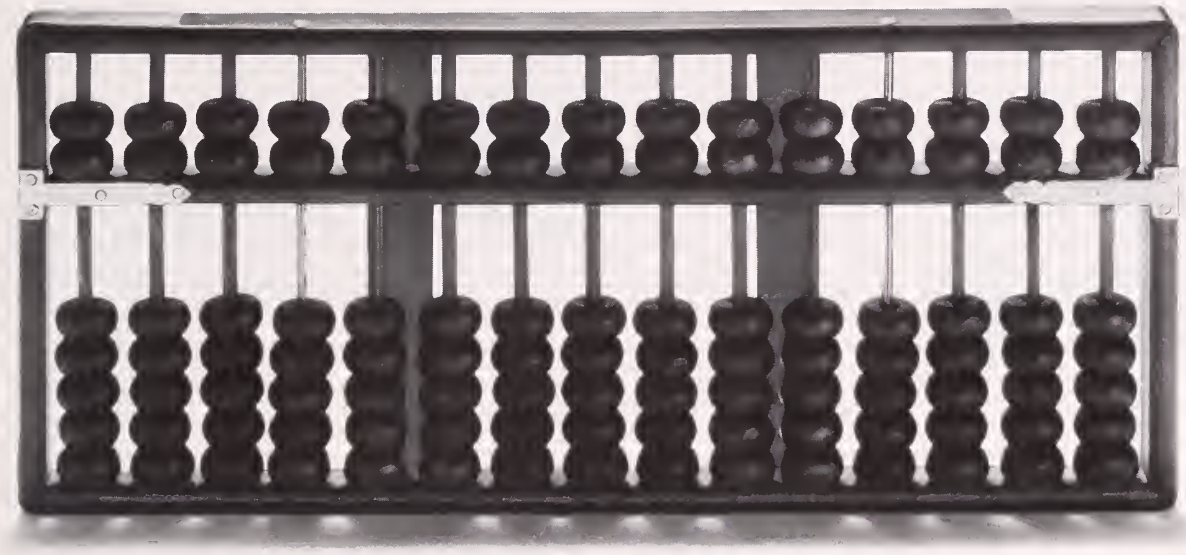
New Technique Curbs Gross Obesity

ANOTHER approach to using surgery as treatment for morbid obesity is described in a recent issue of an American Medical Association publication.

The new technique involves wrapping the stomach in a sheath of polypropylene mesh to constrict the stomach size and thus reduce the amount of food that can be consumed.

Writing in *Archives of Surgery*, Lawrence H. Wilkinson, M. D., of the New Mexico School of Medicine, Albuquerque, reports that of 100 persons who underwent such an operation, all but one are losing weight satisfactorily. No harmful side effects were noted, Doctor Wilkinson said.

The technique of wrapping the stomach in a mesh net to constrict its capacity also holds down the ability to take in food, without the problems of earlier techniques such as intestinal bypass and stomach stapling, Doctor Wilkinson commented.



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A message from . . .

The President

FREE-DUMB

The reader is advised to read the last paragraph of this article, for the entire philosophy may be misunderstood without doing so.

As a medical student, our professor of psychiatry advised never to give your services away, for that often reflected in the recipients what they were worth. Be certain to charge something—an hour's work, a sack of potatoes, a dollar bill. In medicine today, we are giving "free" many of our services. As a result, they are expected and unappreciated.

What are some of these unheralded freebies? Free examination for school sports events and free care of the minor injuries at same; free clinics for everything from well baby to BP to glaucoma, etc.; and welfare care supplemented out of our own pockets without even a thank you or realization that we pay for it. At $13 average office expense per call and $7 reimbursement, we give "free" an average of $6 to every welfare patient—and they (some) demand it as a right.

Other freebies provided are the partial training of physicians, "free" research, and more than $1.3 million in American Medical Association Education and Research Foundation (AMA-ERF) funds freely contributed by physicians and their spouses this past year alone.

I know of no other group so generous in its contributions to its own profession. As an aside, society recognizes our generosity for all manner of civic endeavors, and we are on the top of their lists for solicitations.

Another list of freebies unheralded is the time given for teaching by thousands of doctors, and time for serving on many committees which keep hospitals running such as search, tissue, blood bank, pharmacy, audit, chart review, cost containment, etc., etc.

The above comments represent only some of the freebies which medicine gives to society, often without knowledge or thanks. Do they represent "free-dumb?" Should we, in the philosophy of my psychiatry professor, insist on some reimbursement?

In the final analysis, I believe a great majority of physicians I have met are altruistic individuals who enter our profession without money in mind, but for that inner, immeasurable reward of being able to do good unto our neighbors, "cure" disease and relieve suffering. May it so remain, but it would be nice sometimes to receive a "thank you" rather than so many bureaucratic brick bats.

L. Walter Fix, M.D.

L. Walter Fix, M. D., *President*

The West Virginia Medical Journal

Editorials

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HEALTH PLANNING: A NEW DIRECTION?

It's obvious that significant elements of health planning, as created by 1974 and 1979 federal legislation, are on their way out. The only question seems to be how much actually will go how fast.

We shall shed no tears with the demise of the Health Systems Agencies, for which the Reagan Administration plans to phase out funding over a three-year period. Aside from creating a real economic boon for paper manufacturers, we can credit them with little of a really positive nature.

Offered in the U.S. House of Representatives in late May by Democrat Congressman Richard Shelby of Alabama was HR 3666 to repeal the Health Planning Law in toto. Congress-watchers predicted that something less than that might happen in the reasonable future.

The American Medical Association, American Hospital Association and others who threw varying degrees of support behind the Shelby proposal have insisted that repeal of the planning law is absolutely necessary to end federal interference in local planning decisions. The AMA, in particular, consistently has argued that the law has imposed federal regulations on what primarily should be locally-directed health planning.

The AMA also has charged that the Federal Government has used the planning act to set short-term cost containment objectives rather than effect planning for local health needs. There are the additional contentions that the planning program really has not been cost effective; and that it actually has created anti-competitive barriers to market entry of health care delivery systems through burdensome certificate of need and other approval requirements.

An end to funding for the planning program — the current Reagan approach — would not end federal requirements that states enact certificate of need laws conforming to federally set program minimums or face loss of federal funds. Only total planning law repeal can end that — and states still could operate their own certificate of need programs as set up by state law — as now is the case in West Virginia and most other jurisdictions. There is a continuous need to assure the right community-level base for CON statutes.

We agree with the AMA that health planning as it has been developed under current law indeed has been ill-conceived and would appear to be "beyond salvage." It simply has not come close to falling into a pattern of good, grass-roots activity those who fathered the statute envisioned in all good faith.

The AMA correctly has said that the planning program has become a "bureacratic maze of plans, applications and red tape that (have) unduly delayed the development of needed projects and substantially increased project costs."

What's a workable alternative to the health planning direction we've had? The AMA is committed to improvements in the health care delivery system that would release or eliminate barriers to provision of high quality medical and health services.

Specifically, it has called for a voluntary collaborative effort at the community level. We can buy that — and that's what those who designed the health planning act also were trying to develop in at least a comparable way.

But let's pause for some sobering reflection. Regardless of how it's done, health planning almost certainly is with us to stay, in some form. The public, while perhaps not too supportive of the cumbersome health planning law — something it generally never has been able to understand — remains deeply troubled by high health care costs. It wants something done about those costs, as well as inflation-fed others that make it increasingly difficult to make personal and household financial ends meet.

Maybe the "collaborative" local-level effort can work. But it can't succeed without a total commitment by everyone — the banker, the merchant, the doctor, the plant worker, the housewife, etc.

We've talked about all this community involvement before. Now, depending on what the Congress does and when, we well might have to get beyond mere words; roll up our figurative, collective sleeves, and really get some effective health planning actually in place at the all-important local level. This won't be easy.

THE PSRO FUTURE: A QUESTION MARK

Amid the budget hubbub at administration and congressional levels in Washington, nothing is more confusing than the uproar which has enveloped the Professional Standards Review Organizations (PSRO) framework. Physicians might find that what eventually happens in this area of professional review will shape up as something less than desirable, and perhaps downright frightening.

PSRO was born in 1972, and has existed, in controversy. The West Virginia Medical Institute, Inc., the PSRO agency in the Mountain State, has been caught up to a degree in professional, emotional and other differences among those in the physician community, although it originally was developed on a continuing medical education base with less turmoil than has been seen in other states—and has won high marks.

The Reagan Administration, which now seems anything but certain of how it really views PSRO, first proposed phasing out the program by removing all funding by fiscal 1984. En route to that goal, a review and ranking of the 180 or so PSROs across the country was scheduled for completion at the end of April—but signals were changed in midstream as to the review process, and the end of May found the whole effort in disarray. June rankings listed the Institute No. 30.

Meanwhile, three or four different congressional committees and subcommittees have taken off in completely different directions, ranging from the phasing out approach to proposals for keeping the better PSROs alive to enter into contracts with private insurance carriers and others interested in using the established review machinery. Some 45 PSROs are being defunded.

In the physician population, sharp differences of opinion again have emerged, as evidenced by varying resolutions offered during the annual meeting of the American Medical Association's House of Delegates in Chicago in June.

The New York delegation called on the AMA to support the use of federal funds for review purposes to continue PSRO activity "rather than create new state mechanisms . . . where the physician community has determined PSRO to be effective."

A Connecticut physician urged the AMA to endorse the concept of peer review organizations and support continued federal funding of existing PSROs that have demonstrated "successful performance in improving quality health care and cost containment in their local communities."

The always conservative Louisiana delegation called for quick implementation of an AMA policy adopted in December, 1980, "to encourage the elimination of all government-directed peer review programs, including PSRO."

The AMA policy, as generally reaffirmed in Chicago, can be reviewed here or elsewhere in *The Journal* later, but the underlying question of most importance is what alternative, or alternatives, to PSRO might lie ahead. Continued professional review of some kind is dead certain. Federally funded medical programs certainly will require such a component—and the private sector has determined utilization review and quality control to be of increasing importance as cost effectiveness tools.

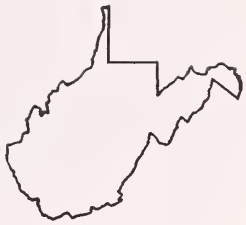
The key point always will be who is doing the review. Are we headed for a figurative situation in which we ask a plumber how many raisins to put in a fruit cake? Or will professional review remain with the professionals, specifically those with the training and expertise not only to provide quality care, but to measure and evaluate it?

It's no secret that organizations such as Blue Plans have long been ready across the nation to step in and propose contractual arrangements with the government for review. Any such plan could give you a figure, right now, for which it would do review on a per-discharge basis.

Meanwhile, we expect the West Virginia Medical Institute to stack up well in any ranking the government further develops. It has had consistently strong and dedicated physician leadership, with officers and board members from among the state's most respected practitioners.

The Institute has had its trials and tribulations —many of them forced upon it by government insistence until recently on use of PSRO primarily as a cost containment vehicle, with measurement of quality of care given a subordinate position. But on an overall basis, the Institute has a positive record that even its critics must recognize in some measure.

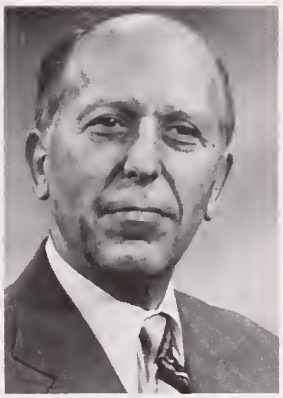
GENERAL NEWS



Handicapped, Malpractice Convention Topics

Two presentations on the handicapped, and a talk on malpractice have been scheduled for the 114th Annual Meeting of the State Medical Association, it was announced by the Program Committee.

The Rev. Harold H. Wilke

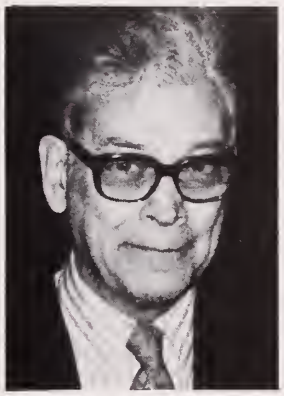


Leslie F. McCoy, M. D.

The convention will be held August 20-22 at the Greenbrier in White Sulphur Springs.

The Rev. Harold H. Wilke, Executive Director of The Healing Community in White Plains, New York, will speak during the Friday morning. August 21, general session on "A Fuller Spectrum of Life for the Handicapped."

Reverend Wilke's talk will be followed by "How Can We Also Rehabilitate?," a case presentation of a person who has had a stroke. Presenting the case will be Dr. Leslie F. McCoy of Charleston, recently-retired Assistant Director, Medical Services, West Virginia Division of Vocational Rehabilitation; and Dr. Ralph H. Nestmann, Charleston internist.



Ralph H. Nestmann, M. D.

Eric W. Springer, LL.B.

Reverend Wilke also will be guest speaker for the meeting of the West Virginia Chapter, American Academy of Pediatrics, at 2 P. M. Friday. His topic will be "Conversations Between My Pediatrician and Parents."

Eric W. Springer, LL.B., of Pittsburgh will speak on "Avoiding the New Malpractice Pressures" during the Saturday morning general session.

The Healing Community which Reverend Wilke directs is an interdenominational project designed to help the religious community receive the handicapped and the alienated into the mainstream of society. The President of Goodwill International and a volunteer in rehabilitation, he has carried the cause of rehabilitation through speeches in all 50 states and 37 countries.

Reverend Wilke is an ordained minister of the United Church of Christ and Adjunct Professor in Psychiatry and Religion at Union Theological Seminary in New York City.

Springer, a graduate of Rutgers University and New York University School of Law, is a partner in the law firm of Horty, Springer and Mattern of Pittsburgh. In addition to his private practice, specializing in health and hospital law, he is a contributing author to "Action-Kit For Hospital Law." As an Adjunct Professor of Hospital Law, he currently lectures at the School of Health Related Professions, University of Pittsburgh.

Springer, one of the original authors of "The Hospital Law Manual," is a trustee of the Presbyterian-University Hospital of Pittsburgh.

The pre-convention meeting of the State Medical Association's Council and the first session of the House of Delegates, as announced previously, will be held on Thursday (August 20) instead of on Wednesday as has been the case in recent years. This schedule change is the result of action by the House last August to shorten the 1981 Annual Meeting by one day.

AMA President to Speak

Daniel T. Cloud, M. D., who was installed as President of the American Medical Association in Chicago in June, will address the first House session Thursday afternoon. Doctor Cloud is a pediatric surgeon from Phoenix, Arizona.

The Director of the West Virginia State Department of Health will be the keynote speaker for the convention. Dr. L. Clark Hansbarger will deliver the Thomas L. Harris Address at 9 A. M. opening exercises on Friday preceding the first general session. "Your Department of Health — Its Goals for the Future" will be the title of his address.

The annual address was established with a bequest in the will of the late Dr. Thomas L. Harris, Parkersburg surgeon who served as President of the Association in 1945.

The number of general sessions has been reduced from three to two, and will be held on Friday and Saturday mornings, as noted, with elimination of the previous Thursday morning scientific session.

Also speaking during the Friday morning session, as announced previously, will be Dr. William L. Furlow, Department of Urology, Mayo Clinic. His subject will be "Impotence with Regards to the Etiology, Diagnosis and Treatment." Doctor Furlow also will speak at the meeting of the Section on Urology at 2 P. M. on Friday. His subject will be "Urinary Incontinence."

The other speakers and topics for the Saturday morning session will be "Effect of Environmental Factors on Epidemiology and New Trends in the Treatment of Bone Tumors"—Rudolf K. Lemperg, M. D., Ph.D., Professor of Orthopedic Surgery, West Virginia University Medical Center, Morgantown; and "Why Can't People Get Things Straight? (A Relationship Between Communications and Malpractice Accusations)." —Leonard M. Davis, Ph.D., Professor of Speech and Professor of Speech Pathology at WVU in Morgantown.

Doctor Lemperg also will be the guest speaker for the meeting of the Section on Orthopedic Surgery at 2 P. M. on Friday. "Arthritis, Pain and Interosseous Hypertension" will be his subject.

Various other scientific sections and societies again will hold breakfast and other scientific meetings on Friday and Saturday, and the House will meet for the second and final time on Saturday afternoon.

Doctor Markey to be Inaugurated

The Saturday evening reception for new officers will be held as usual following the second House session. At that session, Doctor John B. Markey of Charleston will be inaugurated as President to succeed Dr. L. Walter Fix of Martinsburg.

Members of the 1981 Program Committee are Dr. T. Keith Edwards of Bluefield, Chairman; Doctor Markey; and Drs. Stanley J. Kandzari of Morgantown, Ruth C. Harris of Huntington, Jerome C. Arnett, Jr., of Elkins and Harvey D. Reisenweber of Martinsburg.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. Gary G. (Ruth) Gilbert of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's convention.

The complete convention program, including the schedule and speakers for other related meetings, physicians who will serve as moderators, and additional details, will appear in the August issue of *The Journal*.

MU Researcher Gets Grant

The National Institutes of Health (NIH) has awarded a three-year research grant, amounting to $100,217, to a Marshall University School of Medicine faculty member, Dean Robert W. Coon, M. D., announced.

The grant recipient, Michael R. Moore, Ph.D., Assistant Professor in the Biochemistry Department, will investigate estrogen responsiveness in human breast cancer, an area in which he has conducted preliminary studies.

Change Made in Schedule For House Meeting

Previous news stories in *The Journal* relative to the program for the Medical Association's 114th Annual Meeting August 20-22 at the Greenbrier have said the first session of the House of Delegates will be held at 3 P. M. on Thursday, August 20.

Because of a program addition on that day, the House session has been rescheduled for 2:30 P. M. Those physicians who will be delegates or whose responsibilities otherwise will require their presence at this meeting are requested to make special note of this change.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal).

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

Sept. 25-26, Morgantown, WV Chapter, Am. College of Surgeons

Oct. 8-9, Morgantown, Annual Pediatric Days

Oct. 15-16, Morgantown, 7th Annual Hal Wanger Family Practice Conference

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, Upshur-Buckhannon Middle School, 3rd Thursday, 7-9 P. M.—July (vacation)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M.—July 8, "Dealing with Emotional Problems in the Clinical Setting," Part II (a special mental health training program). John Hutton, M. D.

Oak Hill, Oak Hill High School (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M.—July (vacation)

Welch, Stevens Clinic Hospital, 11 A. M.-1 P. M. —July (vacation)

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M.—July (vacation)

Williamson, Williamson Junior High School, 1st Thursday, 6-8 P. M.—July (vacation)

88 Members In New WVU Class Announced

Eighty-seven West Virginians and one Californian will compose the 1981 entering class of the West Virginia University School of Medicine.

The 18 women and 70 men, who will begin classes in late August, completed their undergraduate education at 28 different institutions, with 61 attending universities or colleges within the state.

More than half (48) studied at WVU. Four attended Marshall University. Three are graduates of Bethany College and two of the University of Charleston. Concord, Fairmont State, West Virginia State and Shepherd colleges account for one each.

The West Virginians come from 27 counties. The number of students listed from Monongalia County (18) reflects the change of legal address made by some during their undergraduate years at WVU.

Kanawha County has 17 residents in the class. Cabell has six and Ohio five.

Cumulative grade-point average for the accepted applicants is 3.52, and science average is 3.44.

Applications were sent to 357 West Virginians and 329 non-residents, and were returned by 243 West Virginians and 203 non-residents. Interviews were granted by the 20-member Committee on Admissions to 234 from the state and to 83 from out-of-state.

Members of the class include:

Berkeley: Hedgesville — Deborah G. Stewart; Martinsburg — Michael F. Carter, Brent W. Chapman and Donald W. Kees.

Brooke: Wellsburg — Charles B. Arthurs and David L. Whetsell.

Cabell: Huntington — Timothy A. Damron, Hans G. Dransfeld, James M. Fleckenstein, Peter M. Murray, Thomas F. Scott and Georgia D. Sturgeon.

Grant: Maysville — Rusty S. Cook.

Greenbrier: Lewisburg — Randolph E. Modlin.

Hampshire: Romney — Charles R. Whiteman.

Hancock: Weirton — Bart W. Balint. George D. Martich and Renee B. Saggio.

Hardy: Moorefield — Vickie L. Williams.

Harrison: Clarksburg — Anna M. Contento.

Kanawha: Cedar Grove — Maurice D. Kinsolving; Charleston — Eric L. Gunnoe, Michael B. Harmon, Michael R. Hicks, Clay B. Marsh, Charles C. McCormick, Douglas L. Moore, Thomas R. Pecsok, Charles E. Reier and Lee Ann Skaff; Nitro — James J. Pettit; St. Albans — Wannetta S. Casdorph, Richard O. McBurney, Steven R. Matulis, Mark A. Newbrough and Caroline A. Williams; South Charleston — Randi E. Martin.

Lewis: Weston — William T. Corder.

Marion: Fairmont — Judie F. Charlton and Frank C. Lucente; Mannington — Debra M. Ashcraft.

McDowell: Thorpe — David R. Drosick.

Mercer: *Princeton* — Dana E. Bragg and Ted D. Thornton.

Mineral: Keyser — Richard K. Umstot, Jr.

Monongalia: Morgantown — Jeffrey V. Ashley, Robert M. Brashear, Anthony L. Cantwell, James W. Freese, James M. Irish, Glen E. Johnson, Sandra S. Johnson, Christine R. Kincaid, Douglas B. Learn, Ralph E. Massullo, James J. Morgan, Jon R. Pearse, James Photiadis, Daniel E. Pickle, Cynthia A. Point, Elaine V. Stasny, Steven L. Watkins, Charles A. Weber and Gregory J. Yi.

Ohio: Wheeling — Patricia S. Bonitatibus, Charles E. Burns, Ellen A. Kellogg, Thomas J. Maroon and Gregory S. Merrick.

Preston: Kingwood — David J. Brailer, Kevin A. Halbritter and William E. Kelley.

Putnam: Pliny — Kyle E. McCausland.

Raleigh: Beckley — Robert S. Childers and Brian W. MacAulay; Bolt — Clarence H. Beavers; Midway — Cecil C. Graham.

Randolph: Elkins — Edwin L. Rader and Renee A. Woodford.

Taylor: Grafton — Jonathan B. Murphy.

Wayne: Kenova — Randall A. Maynard.

Webster: Cowen — Charles A. Tracy.

Wetzel: Folsom — Douglas D. Heldreth.

Wood: Parkersburg — Mark S. Louden and David I. Safferman; Vienna — Craig E. Wolff.

Wyoming: Mullens — Robert B. Dushkoff.

Out-of-State: California, Davis — Michael N. Rubenstein.

Medical Association Announces Scholarship Winners

Recipients of four 1981 scholarships who will enter medical schools at West Virginia University and Marshall University this fall have been announced by the West Virginia State Medical Association.

Dr. John Mark Moore of Wheeling, Chairman of the Association's Committee on Medical

Robert Steven Childers

Eric Lee Gunnoe

Scholarships, announced these winners, each of whom will receive $1,500 for each of his or her four years of undergraduate medical training:

Robert Steven Childers of Beckley, and Eric Lee Gunnoe and Michael Blake Harmon, both of Charleston, all of whom will enter the first-year medical school class at WVU in August; and Stephanie Ann Skolik of Huntington, who will begin her studies at Marshall.

Childers, son of the late Bernard O. Childers and Mrs. Louise F. Childers, received a B. A. degree in biology from WVU this spring.

Gunnoe is a 1981 graduate of WVU with a B. S. degree in biology. He is the son of the late Bobby L. Gunnoe and Mrs. Barbara Anne Gunnoe.

Michael Blake Harmon

Stephanie Ann Skolik

Harmon has completed more than three years of undergraduate work at WVU, and will receive a degree in biology after additional hours of credit he will receive in medical school. He is the son of Robert L. Harmon of Beckley and Mrs. Barbara C. Queen of Charleston.

The new awards bring to 60 the number granted by the Medical Association to deserving young West Virginia men and women since it began its scholarship program in 1958. It awarded one scholarship annually until going to two in 1962.

It then increased the number in 1974 to the current four with the objective of further encouraging young physicians to establish practice in the state.

Transfer Of Medical Records Raises Frequent Queries

Questions frequently arise regarding the transfer of medical records to patients or other physicians. These questions have raised legislative interest in this and other states.

The "Current Opinions of the Judicial Council of the American Medical Association. 1981" set out at some length the standards by which physicians should be guided in the absence of a statutory mandate. Two pertinent sections are quoted here for your information.

"7.01 RECORDS OF PHYSICIANS: AVAILABILITY OF INFORMATION TO OTHER PHYSICIANS. The interest of the patient is paramount in the practice of medicine, and everything that can reasonably and lawfully be done to serve that interest must be done by all physicians who have served or are serving the patient. When a colleague who is presently treating a patient requests records from another physician who has formerly treated the patient, the former physician should promptly make his records available to the attending physician.

No set rule can be laid down to cover the manner in which the records are to be transmitted to the attending physician. Under some conditions, a personal inspection of the records might suffice; under others, an oral report of what is contained in the records would be of help; or in other circumstances, a summary of the records might be made. In extreme cases, a physician might lend his complete record to the attending physician. The manner of making the report — or the information contained therein — available to the succeeding physician is immaterial and will depend on the circumstances of each case. Certainly, however, the attending physician should not demand or expect more information from the former physician than is necessary to give the patient adequate care in the present illness.

It is assumed, of course, that proper authorization for the use of these records has been granted by the patient.

It is unethical for a physician who formerly treated a patient to refuse for any reason to make his records of that patient promptly available on request to another physician presently treating the patient. (emphasis added.)

"7.02 RECORDS OF PHYSICIANS: INFORMATION AND PATIENTS. Medical notes made by a physician in private practice are for his own use in treating a patient and belong to him. With the patient's consent, the record may be examined by an attorney, another physician engaged by the patient, or other party, but the patient has no legal right to its possession or ownership. The record is physically the personal

Dr. L. Walter Fix (seated, right) of Martinsburg, President of the State Medical Association, was the guest speaker for the Annual Meeting of the Hancock Medical Society in May in Weirton. He is shown with Dr. Thomas J. Beynon (seated, left), Society President, and (standing, from left) Dr. Pedro Montero, Jr., Secretary, and Dr. Richard E. Flood of Weirton, a Past President of the State Association and currently a Delegate of the Association to the American Medical Association.

property of the physician, although the patient (or his legal representative) has certain legal rights to the information contained in the record about the patient's diagnosis and treatment.

Several states have enacted statutes that authorize patient access to medical records. These statutes vary in scope and mechanism for permitting patients to review or copy medical records. Access to mental health records, particularly, may be limited by statute or regulation. A physician should become familiar with the applicable laws, rules, or regulations, on patient access to medical records.

The record is a confidential document involving the physician-patient relationship and should not be communicated to a third party without the patient's prior written consent, unless it is required by law or is necessary to protect the welfare of the individual or the community.

Medical reports should not be withheld because of an unpaid bill for medical services. (emphasis added.) Simplified, routine forms can be prepared without charge, but a charge for more complex, complicated reports may be made in conformity with local custom.

Strict adherence to these principles will avoid many unseemly incidents and will increase the esteem of the physician in the eyes of his patients, his peers, and the public at large."

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Basic Histology, 3rd Edition, by Luis C. Junqueira, M. D.; and Jose Carneiro, M. D. 504 pages. Price $15.50. Lange Medical Publications, Los Altos, California 94022. 1980.

Current Surgical Diagnosis and Treatment, 5th Edition, Edited by J. Englebert Dunphy, M. D.; and Lawrence W. Way, M. D. 1138 pages. Price $25. Lange Medical Publications, Los Altos, California 94022. 1981.

Seminar Planned For Hospital Medical Staff Physicians

"Medical Staff Issues and the Practicing Physician," a seminar for physicians, will be held August 7-9 at the Greenbrier in White Sulphur Springs.

The sponsor is the West Virginia Hospital Research and Education Foundation, Inc.

The seminar is intended for physician members of medical staffs including chiefs of staff, medical staff officers, medical directors, directors of medical education, and chairpersons of executive, accreditation, quality assurance and other medical staff monitoring committees.

Two of the objectives will be to show how practicing physicians can enhance the functioning of an organized medical staff, and how they should make policies for delineating privileges, monitoring patient care, and resolving problems.

Seminar topics will include: selecting staff officers; organizing and conducting meetings; meeting hospital obligations; making the decision to appoint or reappoint; identifying and solving clinical department and hospital-wide problems; selecting appropriate actions to resolve problems; and addressing demands of external agencies.

The program meets the criteria for 11 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

The registration fee is $215, with registration limited to 100. For additional registration and other information, contact Donna L. Johnson, West Virginia Hospital Research and Education Foundation, Inc., 1219 Virginia Street, East, Charleston 25301. Telephone (304) 346-0481.

Dr. Robert W. Coon Honored

Dr. Robert W. Coon, Dean of the Marshall University School of Medicine, was awarded the honorary Doctor of Science degree during recent commencement ceremonies at the University of Vermont.

Doctor Coon, who also serves as Vice President for Health Sciences at Marshall, worked with the University of Vermont College of Medicine from 1955 to 1973. In 1974 he was awarded the Distinguished Service Award of the Vermont State Medical Society.

A pathologist, he was serving as Vice Chancellor for Health Education to the West Virginia Board of Regents when he accepted the Marshall position in 1976.

IF YOU LOOKED AT THE NEW 1981 SAAB SEDAN THE WAY WE DO, YOU'D CALL IT BEAUTIFUL, TOO.

Just look at the things that really matter.

For example, the new Saab's backseat folds down to provide 53 cubic feet of cargo space—more than any other sedan in America.

The 1981 Saab's fuel-injected engine gives you the muscle of 6 or 8 cylinders, but does it with just 4.

And because the Saab has front-wheel drive, you experience superior handling and stability, even during inclement weather.

And the list goes on.

If, however, you're still not convinced that the new Saab Sedan is one of the most beautiful cars in the world, you'll simply have to come by and take a test drive.

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THE MOST INTELLIGENT CAR EVER BUILT.

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WVU Medical Center
–News–

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Alumni Honor Doctor Knapp At New York Meeting

The Board of Governors of New York Medical College's Alumni Association has bestowed its highest honor on a WVU School of Medicine faculty member.

Richard B. Knapp, M. D., Professor and Chairman in the Department of Anesthesiology, received the Association's Medal of Honor at its annual banquet this spring in New York City in recognition of outstanding achievements within his specialty.

Doctor Knapp, who was born in New York City, received his bachelor's degree from Columbia University. He joined the WVU faculty in 1974.

Since coming to WVU, he has been a leader in establishing and expanding the cardiopulmonary resuscitation program of the West Virginia Affiliate, American Heart Association, serving as Chairman for the state and on the Board of Directors for Monongalia County.

He is Secretary-Treasurer of the West Virginia State Society of Anesthesiologists, Vice-President of the Monongalia County Medical Society, and Chairman of the Society of Academic Anesthesia Chairmen.

Doctor Manier Conducts Course For GI Endoscopy Group

Dr. James W. Manier, Professor of Medicine and Chief of the Section of Gastroenterology, was chosen by the American Society of Gastrointestinal Endoscopy to conduct its annual postgraduate course in New York City this spring.

Working with him was Dr. Larry Blessing, Assistant Professor of Medicine at WVU. Also participating was Ms. Susan Trivits, Chief Technician in the gastroenterology laboratory at the WVU Medical Center. She spoke on "The Technician and the University Laboratory."

Doctors Kandzari, Kim Win Prize For Exhibit

Faculty members Stanley J. Kandzari, M. D., Professor of Urology, and Jin-chul Kim, M. D., Assistant Professor of Radiology, won second prize for their exhibit at the recent annual meeting of the American Urological Association in Boston.

The subject of the exhibit was "The Treatment of Localized Carcinoma of the Prostate Utilizing a New Iodine-125 Seed Injector."

The injector, a device used to place radioactive iodine seeds into the prostate gland for treatment of cancer, was developed by Doctors Kandzari and Kim.

Graphics for the display were done by Gloria Heard, medical photographer, and Barbara Gould, medical illustrator.

Doctor Gutmann Named To Board Examination Committee

Ludwig Gutmann, M. D., Professor and Chairman of Neurology, has been named to the Examination Committee of the American Board of Psychiatry and Neurology.

Doctor Gutmann joined the WVU faculty in 1966 and was named department chairman four years later. A graduate of Princeton University, he received his medical degree from Columbia University and took postgraduate study at the University of Wisconsin and the Mayo Graduate School of Medicine.

Acute pain is no laughing matter.

The first prescription for the first days of acute pain

Empirin® c̄ Codeine #3

Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). Ⓒ III

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin c̄ Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin c̄ Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

For the most effective dosage in treating acute pain, begin with... two tablets of Empirin c̄ Codeine #2 or #3, every four hours. Titrate downward as pain subsides.

EMPIRIN® with Codeine

Ⓒ III

DESCRIPTION: Each tablet contains aspirin (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.)

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

Wellcome

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Research Triangle Park
North Carolina 27709

Third-Party News, Views and Program Concerns

Physician Role In Homestead Tax Exemption Amendment

Editor's Note: The following notice from the State Tax Department of West Virginia outlines the procedure for physicians in certifying that certain taxpayers qualify for the property tax homestead exemption approved by state voters in 1980 and effective July 1, 1981.

All Doctors of Medicine
All Doctors of Osteopathy
State of West Virginia

In November, 1980, the voters of West Virginia ratified an amendment to the State Constitution concerning granting of a property tax homestead exemption of the first ten thousand dollars of assessed value to certain qualifying taxpayers. Among these are persons who are " . . . unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental condition which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve months." Such a person is deemed by *West Virginia Code* § 11-6B-2 to be "Permanently and totally disabled."

The new Homestead Exemption law, specifically *Code* § 11-6B-4, concerns each of you potentially because a doctor's certification must be submitted annually to the claimant's county assessor to maintain eligibility. The form (below) for this certification is similar to State Income Tax Schedule "H."

A claimant must file his claim each year between July 1 and October 1 . . . beginning with 1981.

If you have questions, you may contact any county assessor, or you may phone the Tax Department in Charleston at 348-3940.

Sincerely,
Herschel H. Rose III
State Tax Commissioner

CERTIFICATION OF PERMANENT AND TOTAL DISABILITY

Please complete and return to taxpayer

Name of disabled taxpayer _____ Social Security Number _____

I certify under penalties of perjury that the taxpayer named above was permanently and totally disabled on or before July 1, 19____.

Physician's Name _____

Physician's Address _____

Physician's Signature _____ Date _____

INSTRUCTIONS TO PHYSICIAN COMPLETING DISABILITY STATEMENT

A person is permanently and totally disabled when he or she is unable to engage in any substantial gainful activity because of a physical or mental condition and that disability has lasted or can be expected to last continuously for at least a year, or can be expected to lead to death.

If in your opinion the individual named on this statement is permanently and totally disabled during the current year, please certify such by entering your name, address, signature and date in the space provided and return same to the individual. Should you have any questions, please contact the claimant's county assessor.

THE WHEELING CLINIC

EOFF AT 16th STREET

WHEELING, WEST VIRGINIA

General Surgery:
John O. Rankin, M. D.
Charles D. Hershey, M. D.
Edward C. Voss, M. D.

Ophthalmology:
William F. Park, M. D.
Milton E. Nugent, M. D.
Rizal V. Pangilinan, M. D.

Ear, Nose & Throat:
Wilfredo A. Tiu, M. D.

Orthopedic Surgery:
Edgar L. Barrett, M. D.
Richard S. Glass, M. D.

Thoracic Surgery:
Daniel W. Dickinson, M. D.

Obstetrics and Gynecology:
Robert W. Leibold, M. D.
Robert T. Brandfass, M. D.
Terry Athari, M. D.
James W. Campbell, M. D.

Urology:
Donald C. Trapp, M. D.
John P. Franz, M. D.

Dermatology:
K. William Waterson, M. D.

Internal Medicine:
Albert M. Valentine, M. D.
Carlos A. Vasquez, M. D.
Thomas E. Chvasta, M. D.
Byron L. VanPelt, M. D.
Paul R. Hedges, M. D.
T. Gary Kenamond, M. D.
Derrick L. Latos, M. D.
William E. Noble, M. D.
Larry R. Cain, M. D.

Psychiatry:
David H. Smith, M. D.
Stephen D. Ward, M. D.
David Hill, M. D.

Neurology:
Albert L. Wanner, M. D.
Henry L. Kettler, M. D.
Srini Govindan, M. D.

Roentgenology:
Drs. Butler, Aceto & Assocs.

Speech Pathologist and Audiologist:
James P. Frum, M. S.

Clinical Laboratories:
Donna Burlenski
Donna Bryan

Physician Assistants:
Joann Green, P. A.
Michael G. Simon, P. A.

Technologists:
Electrocardiography:
Betty Maguire, R. N.
Brenda Muklewicz, R. N.
Electroencephalography:
Juanita Stone, R. N., C.M.E.T.
Roentgenology:
Evelyn Forester, R. T.

ST. CLAIRSVILLE BRANCH

Obstetrics & Gynecology Family Practice:
R. A. Porterfield, M. D.

Internal Medicine:
R. N. Lewis, M. D.

General Surgery:
J. H. Mahan, M. D.

Administration:
Lester L. Cline,
Executive Director
Douglas G. Anderson,
Business Manager
Henry L. Castilow,
Asst. Business Manager
D. O. Porterfield,
Business Manager
St. Clairsville

ANNOUNCING...

The opening of a Children's Pavilion for the Psychiatric Treatment of Emotionally Disturbed Children between the ages of 5-13, while maintaining an Adult Psychiatric Care Unit offering:

- CRISIS INTERVENTION
- GROUP THERAPY
- PSYCHOTHERAPY
- ACTIVITIES & RECREATIONAL THERAPIES
- SKILLED ATTENTION TO FAMILY, MARITAL, & INDIVIDUAL EMOTIONAL PROBLEMS
- SPECIAL CARE FOR THE ACUTELY DISTURBED PATIENT
- STAFFED BY QUALIFIED PSYCHIATRISTS & MEDICAL CONSULTANTS
- SERVING THE COMMUNITY FOR OVER 25 YEARS

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300 56th Street S.E.
CHARLESTON, WV 25304
(304) 925-4756

Administrator
EDWIN L. JOHNSON

Medical Director
WILLIAM B. ROSSMAN, M.D.

Chief of Staff
CHARLES C. WEISE, M.D.

ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS

Obituaries

CHARLES W. NELSON, JR., M. D.

Dr. Charles W. Nelson, Jr., of Beckley died on May 11 in a hospital there. He was 52.

Doctor Nelson was Chief of Radiology at Beckley Appalachian Regional Hospital for 10 years, and was in private practice as a psychiatrist for the past year.

Clinical Assistant Professor of Psychiatry at Marshall University School of Medicine, Doctor Nelson was an honorary member of the Raleigh County Medical Society, West Virginia State Medical Association and American Medical Association. He also was a member of the American Radiological Association and the American Psychiatric Association.

A native of Paintsville, Kentucky, Doctor Nelson was graduated from the University of Kentucky and received his M. D. degree in 1956 from the University of Louisville.

Survivors include the widow; the parents, Mr. and Mrs. Charles W. Nelson, Sr., of Crow (Raleigh County); a daughter, Linda Carter of Ghent (Raleigh County), and two sisters.

OPENINGS
AT
THE MYERS CLINIC
Philippi, West Virginia
IN
Family Practice
Obstetrics and Gynecology
General Surgery
TO ASSOCIATE WITH

Radiology:
Halberto G. Cruz, M. D.

Pathology:
Fulvio Franyutti, M. D.

Surgery:
Hu C. Myers, M. D.
A. Kyle Bush, M. D.
J. W. Woodford, M. D.
Albino F. Gimenez, M. D.

Gynecology and Obstetrics:
Raymond W. Cronlund, M. D.

Internal Medicine:
E. G. Guy, M. D.
Karl J. Myers, Jr., M. D.
Wm. A. SanPablo, M. D.
C. S. Kadakia, M. D.
J. B. Astik, M. D.

Pediatrics:
E. G. Kreider, M. D.

Dentistry:
Glenn B. Poling, D. D. S.

Family Practice:
Charles L. Arnett, M. D.

Contact: E. G. Kreider, M. D.
Telephone: (304) 457-2800

CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings **Cyclacillin should only be prescribed for the indications listed herein.**
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS.) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight 20 kg (44 lbs) 125 mg q.i.d.
		body weight 20 kg (44 lbs) 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day
Skin & Skin Structures	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

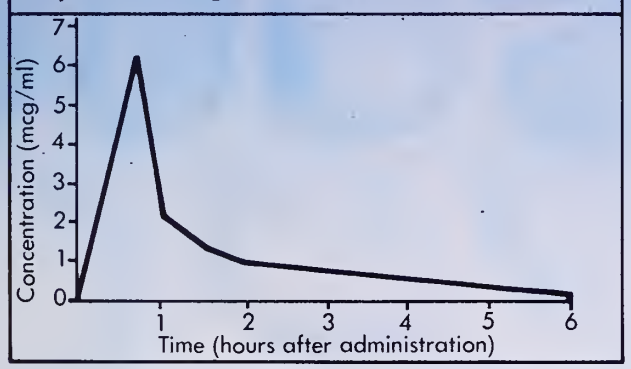
*Dosage should not result in a dose higher than that for adults.
†depending on severity

Wyeth Laboratories
Philadelphia, Pa. 19101

Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*

Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose



- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{α} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

NEW NAME

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County Societies

CABELL

The Cabell County Medical Society met on May 14 at the Gateway Holiday Inn in Barboursville.

The guest speaker was Robert W. Veltri of Morgantown, Director of Research of the Department of Otolaryngology, West Virginia University, who presented an informative and detailed talk on the immunology of cancer.

He described his imaginative studies on the isolation of soluble markers from lung tumors and their identification, observing that the use of soluble markers may facilitate the recognition of cancer before clinical signs and symptoms become manifest.

It was announced that the Society would open on May 18 a permanent office at Cabell Huntington Hospital. The secretary, Ms. Christine Pennington, will be in the office on Monday, Wednesday and Friday from 9 A. M. to noon.—Maurice A. Mufson, M. D., Secretary.

* * *

FAYETTE

The Fayette County Medical Society met on May 13 at the White Oak Country Club in Oak Hill.

Dr. Richard R. German of Oak Hill was presented an award as Doctor of the Year in Fayette County by the Auxiliary to the Society.

Guests included Mrs. Gary G. Gilbert of Huntington, President of the Auxiliary to the State Medical Association.—Honorato M. Aguila, M. D., Secretary.

* * *

HARRISON

The Harrison County Medical Society met on May 7.

The Society issued a statement of tribute in memory of the late Dr. Sobisca S. Hall, a member of the Society since 1937, who died on April 26. (*Editor's Note: See obituary story on Doctor Hall in the News Section of the June issue of The Journal.*)—Carlos A. Naranjo, M. D., Secretary.

* * *

MARION

The Marion County Medical Society met on May 26 at the Fairmont Field Club.

Dr. Stanley Roy Shane of Morgantown gave a talk on hypertension. Doctor Shane is Professor of Medicine at West Virginia University.—William L. Mossburg, M. D., President.

LOGAN

The Logan County Medical Society met on May 13.

Guest speakers, representing the West Virginia Division of Vocational Rehabilitation, were Gerald Tribble and James Owens.

They addressed the membership regarding the programs available through the Division, emphasizing the need for establishing medical disability which impedes performance of work before patients can be aided by the Division.—Herbert D. Stern, M. D., Secretary-Treasurer.

* * *

McDOWELL

The McDowell County Medical Society met on May 13 at Stevens Clinic Hospital in Welch.

Dr. Bernard M. Swope of Welch, orthopedic surgeon, presented the medical program on post-trauma sympathetic dystrophy. He discussed the physiology and anatomy of the sympathetic nervous system and the causalgia.—Muthusami Kuppusami, M. D., Secretary.

* * *

TYGART'S VALLEY

Joseph E. Van Sickels, D.D.S., was the guest speaker for the meeting of the Tygart's Valley Medical Society on May 21.

Doctor Van Sickels spoke on surgical orthodontics, emphasizing that there should be a team approach to surgical orthodontics.—Michael M. Stump, M. D., Secretary.

* * *

WESTERN

The Western Medical Society met on May 12 at Jackson General Hospital in Ripley.

The guest speaker was Tom Auman of Charleston, Director, Professional Liability Department, McDonough Caperton Shepherd Association Group. Mr. Auman gave an informative talk about malpractice insurance costs.

The Society endorsed the "Community-in-the-Classroom" project.—Ali H. Morad, M. D., Secretary.

* * *

PARKERSBURG ACADEMY

Jerome Brazda, Editor of The Washington Report on Medicine and Health, was the guest speaker for the meeting of the Parkersburg Academy of Medicine on May 13 at the Parkersburg Country Club.

Mr. Brazda's topic was "Behind the Washington Scene."

Dr. Michael J. Lewis of St. Marys, a member of the State Medical Association's Council, gave a report on the May 3 meeting of the Council in Charleston.—Ghassan A. Khalil, M. D.

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Book Review

BASIC AND CLINICAL IMMUNOLOGY, 3rd. EDITION—H. Hugh Fudenberg, M. D.; Daniel P. Stites, M. D.; Joseph L. Caldwell, M. D.; and J. Vivian Wells, M. D. 782 pages. Price $17.50. Lange Medical Publications, Los Altos, California 94022. 1980.

The book is a compilation of 44 chapters contributed by many eminent research and clinical scientists. The major changes to the third edition consist of a new introduction and an overview chapter as well as the updating of many chapters to keep pace with recent developments in a rapidly changing field.

The text is divided into four sections, the first of which is basic immunology. Here is given the overview of the immune system; historical background; chapters on immunoglobulin structure, diversity, specificity, biosynthesis, genetics, and reactions with antigens; the complement system; the cells and cell interactions of the immune response; macrophage functions; and mediators of cellular immunity.

The second section deals with immunobiology and includes chapters on genetic regulation, phylogeny and ontogeny, immunopathology, autoimmunity, hypersensitivity and tumor immunology.

The third section consists of three chapters that describe the clinical laboratory methods used for detecting and quantitating antigens, antibodies, immune complexes, and cell-mediated immune functions. Also included here are methods of blood banking and immunohematology.

The final section of 16 chapters deals with a discussion of immunologic diseases and those diseases with immunologic characteristics grouped whenever possible according to organ involvement. Each disease entity within a chapter is discussed according to general considerations, immunologic pathogenesis, clinical signs, immunologic diagnosis and treatment, but the editors emphasize that "these discussions are not intended to serve as a manual of clinical treatment, where specific medications or dosages are mentioned."

The book is well-written and edited and should serve as a comprehensive review of current basic and clinical immunology to a variety of medical professionals with an established background in immunology.—Peter E. Maxim, Ph.D.

REVIEW OF MEDICAL MICROBIOLOGY, 14th. EDITION—Ernest Jawetz, Ph.D., M. D.; Joseph L. Melnick, Ph.D.; and Edward A. Adelberg, Ph.D. 593 pages. Price $14. Lange Medical Publications, Los Altos, California 94022. 1980.

The authors state in the preface to this text that their intention "has been to make available a comprehensive, accurate, up-to-date presentation of those aspects of medical microbiology that are of particular significance in the fields of clinical infections and chemotherapy." They go on to emphasize that a considerable portion of this text is a discussion of basic aspects of genetics, biochemistry, immunity, etc. which are important to an overall understanding of microbiological principles. The inclusion of these topics is intended to extend the usefulness of the book to students in introductory courses.

It should be obvious that a book in its fourteenth edition that has been translated into nine foreign languages must be meeting a need or achieving the authors' stated intentions.

The first 10 chapters deal with introductory information on basic microbiology. Chapters address such topics as cell structure, taxonomy, microbial genetics and microbial metabolism. Included in this group is a chapter on principles of antimicrobial chemotherapy. The next three chapters are devoted to host-parasite relationships and immunology.

The next 12 chapters deal with discussions of major groups of bacteria such as pryogenic cocci, gram-positive bacilli, enteric gram-negative bacteria, spirochetes, Rickettsia and Chlamydiae. Most of the chapters are developed into sections on morphology and identification, pathogenesis, pathology, clinical findings, laboratory diagnosis and prevention and control.

There also are chapters dealing with mycology and parasitology, and 13 chapters on medical virology which are presented in the same format as the bacteriology section.

The *Review of Medical Microbiology* should fill a need for those who want a concise, up-to-date summary of basic and clinical microbiology at a modest price. The summary tables and charts which are common throughout the text aid in further condensing large amounts of similar information into a convenient reference format. —Peter E. Maxim, Ph.D.

Medical Meetings

July 5-10—National Rehabilitation Conference (Assn. of Med. Rehab. Directors and Coordinators; Am. Assn. for Rehab. Therapy), Hollywood, Fla.

July 17-19—Endocrine Society, Cincinnati.

July 30-Aug. 2—International Doctors in Alcoholics Anonymous, Beachwood, Ohio.

Aug. 7-9—WV Hospital Reseach & Education Foundation, Inc., White Sulphur Springs.

Aug. 20-22—114th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.

Aug. 31-Sept. 3—Am. Hospital Assn., Philadelphia.

Sept. 12-15—Am. College of Radiology, Las Vegas.

Sept. 14-15—Am. College of Nutrition, Bethesda, Md.

Sept. 14-16—Am. Neurological Assn., San Francisco.

Sept. 14-17—Am. College of Emergency Physicians, New Orleans.

Oct. 1-4—ASIM, New York City.

Oct. 3-11—Am. Assn. of Blood Banks, Chicago.

Oct. 11-16—Am. College of Surgeons, San Francisco.

Oct. 20-24—Ky. Med. Assn., Louisville.

Oct. 21-25—Med. Society of Virginia, Norfolk.

Oct. 25-29—Am. College of Chest Physicians, San Francisco.

Oct. 26-28—Am. College of Gastroenterology, Bar Harbour, Fla.

Oct. 31-Nov. 5—Am. Academy of Pediatrics, New Orleans.

1982

Jan. 22-24—15th Mid-Winter Clinical Conference, Charleston.

ANNOUNCEMENT

Midwest Forum on Allergy, co-sponsored by the Cleveland Allergy Society and the Ohio Allergy Society, will be held in Cleveland, Ohio, October 2, 3, and 4, 1981, at Stouffer's Inn on the Square.

After July 1, 1981, please contact Dr. Joseph Kelley, Cleveland Clinic, 9500 Euclid Avenue, Cleveland, Ohio 44106, for further details concerning the scientific meeting and hotel reservations. CME credit, Category I, 14 hours available.

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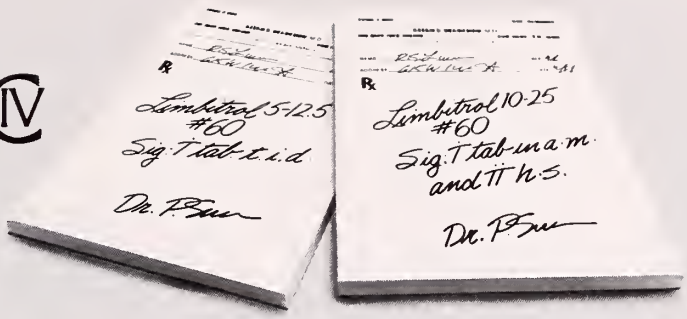

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References: 1. Clagharn J: *Psychosomatics 11*:438-441, Sept-Oct 1970. **2.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, edited by Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316 **3.** Baldessarini RJ, Tarsy D: Tardive dyskinesia, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascia A, Killam KF. New York, Raven Press, 1978, p. 999.

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Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
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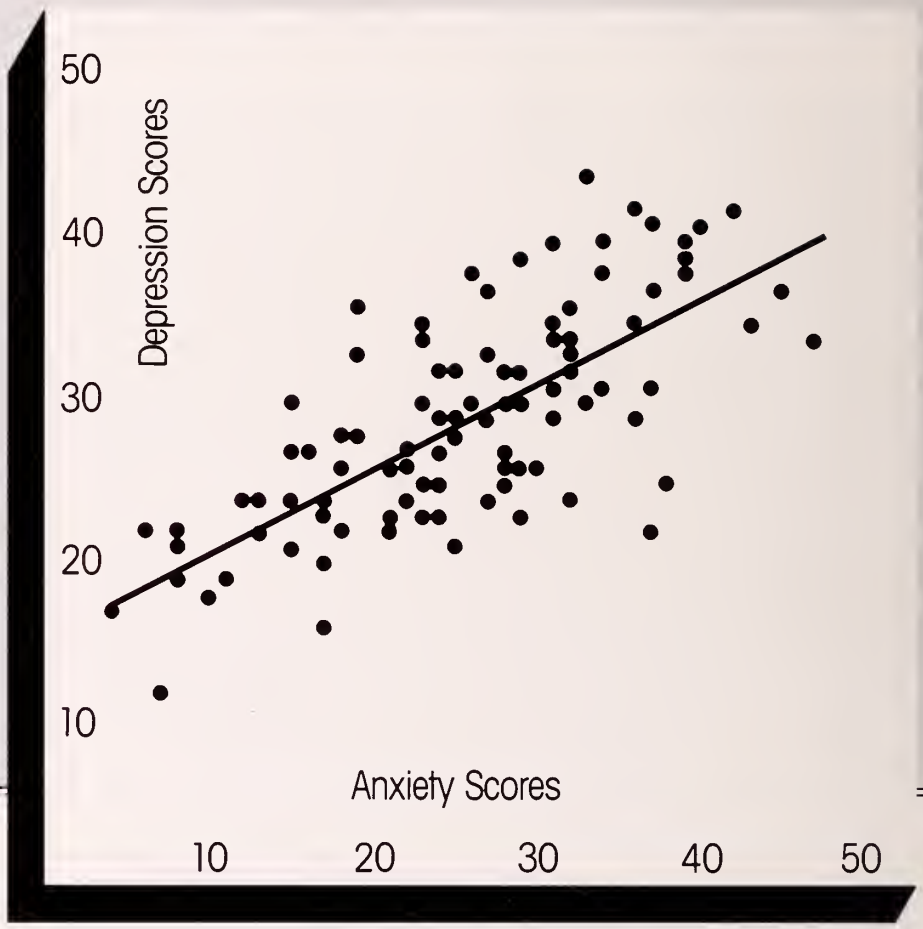

The graph illustrates the close correlation between depression and anxiety derived through the MMPI and the Taylor Manifest Anxiety Scale in 100 nonpsychotic psychiatric patients. The Coefficient of Correlation is 0.7. As depression increased, so did the anxiety levels.
—Adapted from Claghorn J[1]

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1. Claghorn J: *Psychosomatics 11*:438-441, Sept-Oct 1970

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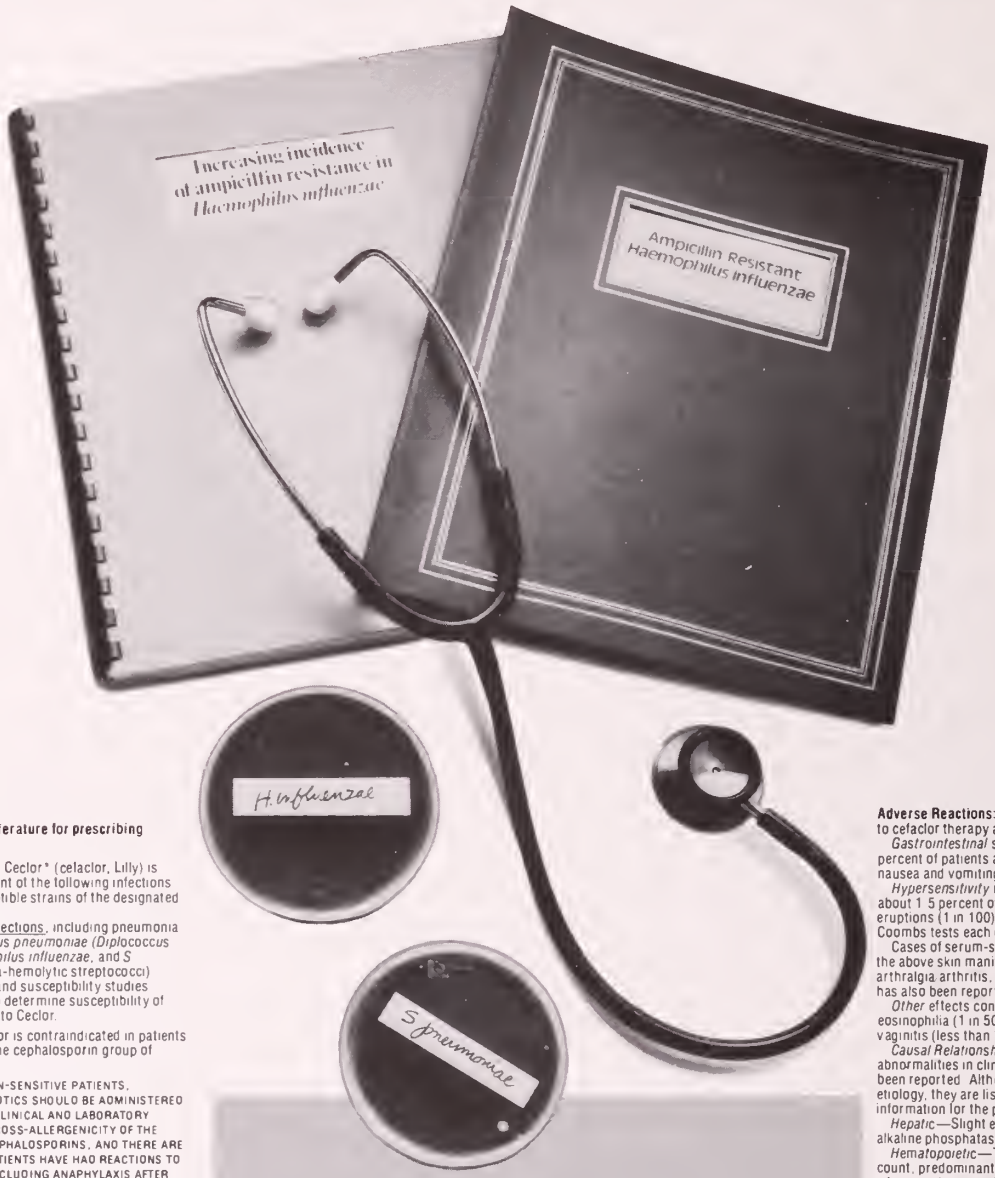
August 1981

An added complication... in the treatment of bacterial bronchitis*



Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established.

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [103060R]

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

References

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5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II:880. Washington, D.C.: American Society for Microbiology, 1978
6. Antimicrob. Agents Chemother., *13*:861, 1978
7. Data on file, Eli Lilly and Company
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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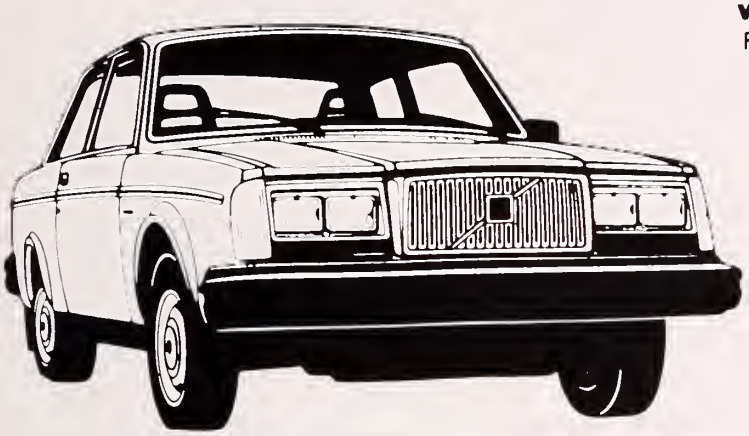

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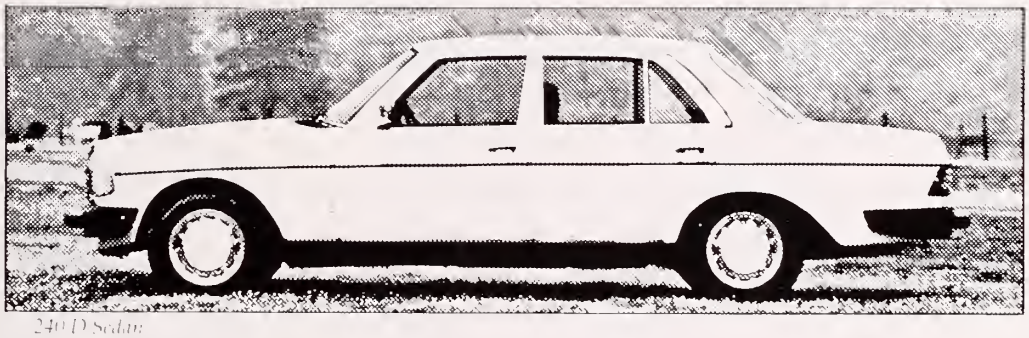

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Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/Roche) ⓥ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® IV
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

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works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.

- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

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Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.

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Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

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- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
  The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

1. Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.

F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis, intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme ½ ounce (15 gm) tubes NDC 0524-0026-51
F-E-P Creme Plain ½ ounce (15 gm) tubes NDC 0524-0025-51
Federal law prohibits dispensing without a prescription.
July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16
Federal law prohibits dispensing without prescription.
February 1980

TWIN-K

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.
July 1980

TWIN-K-Cl™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-Cl is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-Cl may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-Cl be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-Cl taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-Cl are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

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(quinine sulfate tablets)

each tablet contains quinine sulfate 260 mg

Specific therapy for painful night leg cramps

Merrell Dow

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Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes, or peripheral vascular disease . . . consider Quinamm . . . simple, convenient dosage—usually just one tablet at bedtime . . . can provide restful, welcome sleep without night leg cramps.

Quinamm™
(quinine sulfate tablets)

CAUTION Federal law prohibits dispensing without prescription

BRIEF SUMMARY

INDICATIONS AND USAGE
For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS
Quinamm may cause fetal harm when administered to a pregnant woman Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion In about half of these reports the malformation was deafness related to auditory nerve hypoplasia Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys Quinamm is contraindicated in women who are or may become pregnant If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus

Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use Recovery usually occurs following withdrawal of the medication and appropriate therapy

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever

WARNINGS
Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision, however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine Quinamm should be stopped immediately if evidence of hemolysis appears

If symptoms occur, drug should be discontinued and supportive measures instituted In case of overdosage, see OVERDOSAGE section of prescribing information

PRECAUTIONS
General
Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine have been taken Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine (See Drug Interactions)

Drug Interactions
Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration Because of possible similar effects from use of quinine it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants

The effects of neuromuscular blocking agents (particularly pancuronium succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties

Urinary alkalizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity

Drug Laboratory Interactions
Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used

Carcinogenesis, Mutagenesis, Impairment of Fertility
A study of quinine sulfate administered in drinking water (0 1%) to rats for periods up to 20 months showed no evidence of neoplastic changes

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test Intraperitoneal injections (0 5 mM kg) were given twice, 24 hours apart Direct *Salmonella typhimurium* tests were negative, when mammalian liver hemogenate was added, positive results were found

No information relating to the effect of quinine upon fertility in animal or in man has been found

Pregnancy
Category X See CONTRAINDICATIONS

Nonteratogenic Effects
Because quinine crosses the placenta in humans the potential for fetal effects is present Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown Quinine in toxic amounts has been associated with abortion Whether this action is always due to direct effect on the uterus is questionable

Nursing Mothers
Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts)

ADVERSE REACTIONS
The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage (Individual or multiple symptoms may represent cinchonism or hypersensitivity)

Hematologic acute hemolysis, thrombocytopenic purpura, agranulocytosis hypoprothrombinemia

CNS visual disturbances, including blurred vision with scotomata, photophobia, diplopia diminished visual fields and disturbed color vision, tinnitus deafness and vertigo headache, nausea, vomiting, fever apprehension, restlessness confusion and syncope

Dermatologic allergic cutaneous rashes (urticarial, the most frequent type of allergic reaction, papular, or scarlatinal), pruritus, flushing of the skin sweating occasional edema of the face

Respiratory asthmatic symptoms

Cardiovascular anginal symptoms

Gastrointestinal nausea and vomiting (may be CNS-related) epigastric pain

DRUG ABUSE AND DEPENDENCE
Tolerance abuse, or dependence with Quinamm has not been reported

OVERDOSAGE
See prescribing information for a discussion on symptoms and treatment of overdose

DOSAGE AND ADMINISTRATION
1 tablet upon retiring If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring

After several consecutive nights in which recumbency leg cramps do not occur Quinamm may be discontinued in order to determine whether continued therapy is needed

Product Information as of October 1980

Licensor of Merrell™

MERRELL-NATIONAL LABORATORIES Inc
Cayey, Puerto Rico 00633

Direct Medical Inquiries to

Merrell

Dow

MERRELL DOW PHARMACEUTICALS INC
Subsidiary of The Dow Chemical Company
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40
35
30
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getting there...

...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

prescribe

Tenuate* Dospan* ⓒIV

(diethylpropion hydrochloride USP)

75 mg controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Precautions and Adverse Reactions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "... anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

Tenuate–it makes sense. And it's responsible medicine.

Merrell Dow

*Registered Trademarks of MERRELL-NATIONAL LABORATORIES Inc., Cayey, Puerto Rico 00633

References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed, New York Raven Press, 1978, pp. 391-404

Tenuate® ⓒIV
(diethylpropion hydrochloride USP)

Tenuate Dospan® ⓒIV
(diethylpropion hydrochloride USP) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

Licensee of Merrell®

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:

Merrell

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Equagesic®℠

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

*__INDICATIONS__: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information FDA has classified the indications as follows
"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache
Final classification of the less-than-effective indications requires further investigation
The effectiveness of Equagesic in long-term use, i.e. more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate
WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures
Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination
USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.
Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.
Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under
PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery
Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow CNS stimulants e.g., caffeine, Metrazol or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels
ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness
A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions
Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae ecchymoses peripheral edema and fever have also been reported
More severe cases, observed only very rarely may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted
Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug
Impairment of accommodation and visual acuity has been reported rarely
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Apropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions
DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate 75 mg ethoheptazine citrate and 250 mg aspirin

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for mild to moderate pain

Wygesic®

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WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea, and vomiting. These seem more prominent in ambulatory than in nonambulatory patients; some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS: The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms, the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists, naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977).
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Spontaneous Pneumomediastinum As A Complication Of Anorexia Nervosa

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A case of spontaneous pneumomediastinum complicating anorexia nervosa is reported. A brief review of the literature and the possible relationship of starvation to the development of pneumomediastinum also are presented.

PNEUMOMEDIASTINUM is an uncommon condition that often is omitted in the differential diagnosis of retrosternal chest pain.[1] It occurs most frequently without apparent cause, but has been described in various situations including bronchial asthma,[2] parturition,[3] Valsalva's maneuvers during marihuana smoking,[4] mountain climbing,[5] after routine spirometric studies,[6] during diabetic hyperpnea,[7] and with respiratory tract infections.

Only several cases of spontaneous pneumomediastinum complicating anorexia nervosa,[8] and a single case of pneumomediastinum and pneumoretroperitoneum associated with functional anorexia previously have been reported.[9] We report here the case of a young woman with anorexia nervosa and radiographically evident gas in the mediastinum and subcutaneous emphysema but no obvious precipitating cause.

Case Report

A 19-year-old female student came to the University Health Service with a 12-hour history of sore throat, laryngitis and arthralgia in her right shoulder. She awoke with mild pleuritic substernal chest pain radiating to her right shoulder. She was concerned about the possibility of mononucleosis and, while feeling her neck for lymph nodes, noted that her neck was swollen with a crackling sensation on palpation.

On physical examination, her pharynx was injected without exudate. Palpation of the neck and supraclavicular areas revealed widespread subcutaneous emphysema. Cardiac examination disclosed a crunching sound synchronous with the heart beat. The rest of the physical examination was normal. Chest x-ray revealed pneumomediastinum with a rim of air along the pericardial border and outlining the mediastinal structures (Figure). There also was consider-

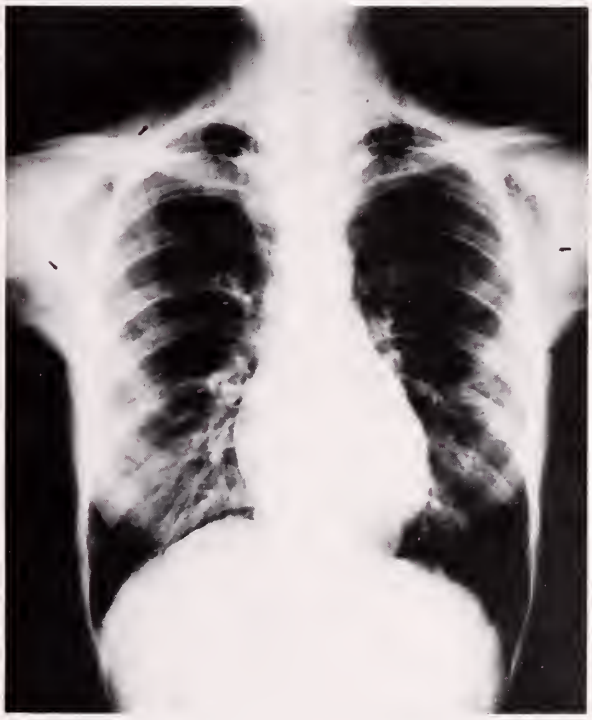

Figure. Chest x-ray reveals marked supraclavicular and axillary subcutaneous emphysema.

able subcutaneous emphysema in the neck above both clavicles and out into the axilla.

Her pleuritic chest pain resolved within 48 hours, and the subcutaneous emphysema was gone within a week. It also was noted that the patient was quite cachectic at 84 pounds; and, although she claimed to eat three regular meals per day, her weight dropped to 81 pounds in one week. Subsequent history revealed that she was concerned about weight loss and, although she felt quite well, she had lost 36 pounds over the past year.

She described herself as a very conscientious student with almost a straight "A" average. She had come to expect perfect classroom work, and became hyperirritable, nauseated and occasionally vomited when she didn't achieve perfect grades. She was the eldest of three children and her parents exerted very strict control over her life. They also expected her to be a model for her two younger siblings. She clearly resented this strict control.

In addition to the loss of body weight she also noted amenorrhea about six months prior to her attack of chest pain. Endocrine evaluation revealed no cause for weight loss and amenorrhea.

She was seen in consultation by a nutritionist, who started her on a 1,500-calorie diet, and also by a psychiatrist who confirmed the diagnosis of anorexia nervosa. She continues being followed by a psychiatrist on a weekly basis. Her weight is hovering between 75 to 80 pounds. There has been no recurrence of chest pain or pneumomediastinum.

Discussion

Pneumomediastinum (mediastinal emphysema) indicates the presence of gas in the mediastinal space.[10] The mechanism of development of spontaneous pneumomediastinum originally was described by Macklin and Macklin as increased intra-alveolar pressure causing rupture of alveoli with escape of air into perivascular sheaths to the hilus. Morere[13] has proposed that the cause of alveolar rupture is the lowering of the pulmonary capillary pressure. Both of these factors may contribute to alveolar rupture.

The most common symptoms are pain and dyspnea. Pain is retrosternal and may radiate into the back, neck or shoulders. It is aggravated by coughing or deep inspiration, and is diminished by leaning forward.[3] Chest radiography is needed to confirm the diagnosis. In posteroanterior projection, the mediastinal pleura is displaced laterally, creating a longitudinal line parallel to the heart border and separated from the heart by gas, usually being more prominent on the left. In lateral projection, a layer of extrapulmonary gas usually is seen in the retrosternal area and along the cardiac border. Physical findings include crunching, precordial sounds synchronous with the heart beat (Hamman's Sign),[11] subcutaneous emphysema, and findings of a co-existing pneumothorax, if present.

The patient described had no apparent precipitating cause. She denied recent respiratory infections, recent severe coughing, excessive straining, chest trauma, self-induced vomiting and hyperventilation. Several authors[8,9] have postulated that malnutrition may predispose to spontaneous pneumomediastinum by "thinning" the connective tissue septa of the lungs. Sahebjami *et al.* have demonstrated significant reduction in tissue elasticity, as assessed by saline pressure-volume curves, in rats starved for three weeks. They thought the loss of tissue elasticity could best be explained by depletion of the connective tissue components.[12] Perhaps similar changes occur in the lungs of patients with anorexia nervosa which predispose them to develop pneumomediastinum.

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Intraventricular Meningiomas*

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This presentation is a summary of two patients with a rare tumor. Prior to development of this manuscript, only 123 such cases had been reported. The emphasis here is on the non-specific presenting symptoms and physical findings.

MENINGIOMAS have been estimated to be 20 to 30 per cent of the primary brain tumors in adults. In the Mayo Clinic series reviewing 1,454 intracranial meningiomas seen from 1914 through 1960, seven (0.5 per cent) of the meningiomas were intraventricular.

It is the purpose of our presentation to discuss the history of these rare tumors and to point out two such recent cases, and their interesting symptoms, at Charleston Area Medical Center (CAMC), Charleston, West Virginia.

History

In 1854, the first intraventricular tumor was described. The symptoms which the patient presented were pains in the legs, paresis of the left leg, difficulty in speech, dysphagia, and convulsive seizures for 27 years.

The first review article by Abbott and Courville in 1942 described 50 such cases, including two at their own institution in California. Their first patient had a fourth ventricle tumor and, after incomplete removal, survived for a period of five and one-half years after the onset of his first symptoms of sound disturbances.

Their second patient presented with a 15-year history of left-sided headaches and a three-year history of progressive failure of vision and hearing. An 18-month period of mental slowing preceded a stupor state, then death. Autopsy revealed a huge meningioma of the left lateral ventricle.

Subsequent review articles led to a total of only 123 reported intraventricular meningiomas. This small number prompted us to investigate this rarity, with the discovery of two cases at our hospital within a three-week period.

*This paper was written while Doctor Miller was a fourth-year medical student at the Charleston Division, West Virginia University Medical Center.

Patient One:

This 31-year-old, white male presented to a local ophthalmologist in January, 1980, for replacement of a contact lens he had broken. Early signs of papilledema were noted on examination. The patient was referred to a neurologist who had seen him three years previously for generalized seizures.

Past medical history revealed that in June, 1976, the patient had "passed out" at work without anyone noticing. Upon awakening he had gone home without telling any of his co-workers of the event. Two weeks later, the fainting recurred. This time, the patient was found on the floor of his office. He was admitted to the hospital for a neurological workup at which time there were no significant findings.

His first witnessed, generalized seizure at home in November, 1976, led to another workup and anticonvulsant therapy. He had four generalized seizures over an 18-month period and was stabilized on Dilantin 100 mg. q.i.d. and Mysoline 250 mg. q.i.d.

Family history obtained during the latest admission disclosed one cousin who had died at an early age from a "malignant brain tumor."

The review of symptoms revealed that he had a throbbing type of discomfort in his left eye when he slept on that side.

The physical examination revealed an alert 31-year-old male in no apparent distress. The only abnormality found was bilateral papilledema with blurring of the margins of the optic discs, hyperemia, loss of physiological cupping, and fullness of the veins. There was a small retinal hemorrhage laterally above the left optic disc. The remainder of the neurological as well as the physical examination was within normal limits, except for pectus excavatum.

Workup: Skull films revealed erosion of the dorsum of the sella tursica as compared to films from 1976. A brain CT scan revealed a large, well-demarcated mass lesion in the deep right parietal-occipital region. A shift of the midline structures from right to left as well as some apparent obstruction of the foramen of Monroe causing dilatation of the lateral ventricles was noted. Cerebral angiogram showed a large mass lesion with its blood supply from the right

posterior cerebral artery and a displaced right posterolateral choroidal artery. A major arterial supply from the distal right internal carotid artery was noted and was thought to be encased in the tumor. Because of the homogeneous staining of the lesion, the possibility of a meningioma was suggested over the possibility of a choroid plexus papilloma.

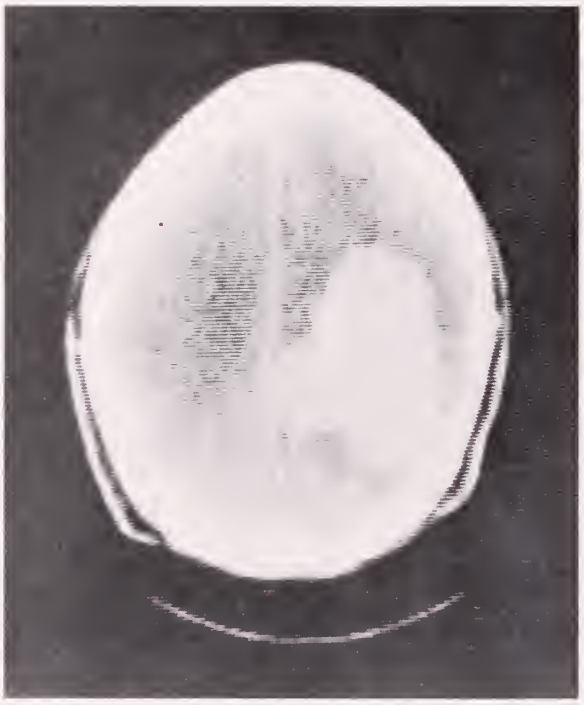

Figure 1. A CT scan of Patient No. 1 offering a superior view of the tumor with the longitudinal cerebral fissure clearly evident.

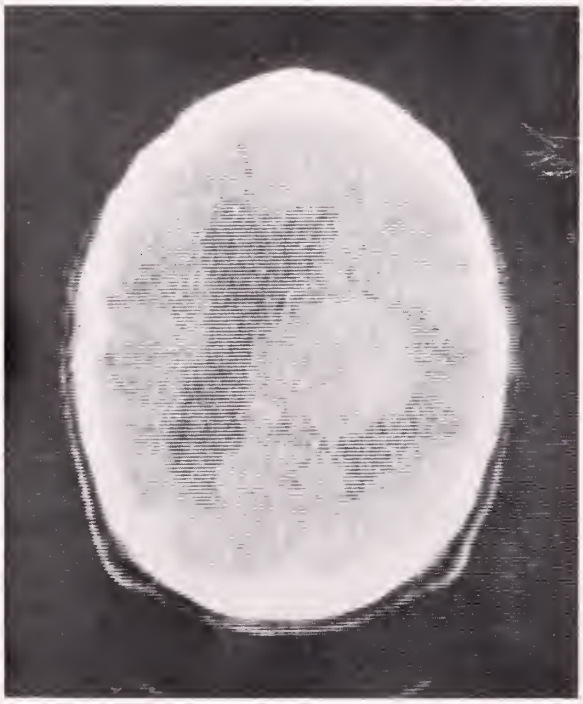

Figure 2. Another view of Patient No. 1 showing the maningioma within the right ventricle.

A right parietal craniotomy revealed a tripartite intraventricular tumor. During the procedure hemostasis was very difficult to maintain. However, bleeding was controlled, with removal of the entire tumor. Eight units of whole blood along with crystalloids were required. The patient tolerated the procedure and was well oriented within 20 minutes postoperatively. Recovery was rapid, with a left homonymous hemianopsia still present at discharge.

Patient Two:

This 31-year-old, white female presented to her family doctor with a three-year history of headaches which seemed to be increasing in frequency and intensity. Sinus films taken in 1976 revealed no sinus problems, but in retrospect a calcified area was overlooked in this report.

The headaches originated in the right occipital region and radiated to the frontal area bilaterally. Various medications relieved the pain minimally. In January of 1980, the patient had excruciating pain which was increased by movement of her head and also by maneuvers such as coughing or straining. She was admitted to a local hospital, and intravenous narcotic analgesics were ineffective in eliminating her pain.

Skull x-ray revealed a heavy calcification in the region of the left choroid plexus. The review of symptoms disclosed an approximate 40-pound intentional weight loss over a six-month period. Bouts of dizziness and vertigo for the same duration were relieved with Antivert.

A neurosurgery consultation was obtained, and the patient was admitted to CAMC for evaluation.

The physical examination revealed a comfortable, obese female without abnormal findings. The complete neurologic examination was within normal limits.

The CT brain scan revealed an area of high density in the left parietal occipital region above the tentorium. The cerebral angiogram showed the blood supply of the area to be the left anterior choroidal artery. There was a suggestion of a stain in the area, which is typical of a meningioma. A routine EEG was normal.

Surgery revealed a left intraventricular meningioma. She tolerated the procedure well, and postoperatively experienced only slight dysphagia.

Location and Symptoms

Approximately 90 per cent of the meningiomas in the lateral ventricles arise from choroidal tissue in the area of the glomus posteriorly. An anterior origin in the region of the foramen of Monroe accounts for the remaining 10 per cent. The aforesaid tissues have no dural attachment; therefore, tumors probably originate from arachnoidal tissue in the choroid plexus.

As the meningioma in the lateral ventricle expands, the tumor extends into and assumes the configuration of the ventricular cavity, thus allowing it to grow to a large size before symptoms of illness appear.

The signs and symptoms produced by a choroid plexus meningioma are not specific. They may be seen with any expanding lesion in the posterior aspect of one hemisphere, including other forms of primary intraventricular tumors such as papillomas of the choroid plexus, and tumors growing within the brain tissue but encroaching upon the lateral ventricles. However, as mentioned, most of these tumors arise in the glomus of the choroid plexus where the ventricular wall is widest.

Symptoms of increased intracranial pressure such as generalized headaches which are aggravated by stooping or straining usually appear first. Nausea and vomiting follow, with transient periods of blindness or blurred vision. Impairment of higher functions such as mentation, attitudes, behavior and feelings invariably occur.

The mental aberrations are not secondary to the site of the tumor, but to the size. Astereognosis and paresthesia along with contralateral hemiparesis have been very common. Tinnitus and a concomitant loss of hearing for high tones may develop in both ears.

As the tumor enlarges, it can obstruct the flow of cerebrospinal fluid, causing pressure on the optic radiation and on the posterior aspect of the internal capsule, and producing a contralateral homonymous hemianopsia and hemiparesis. Further downgrowth distorts the midbrain and the superior cerebellar peduncle, producing cerebellar signs and symptoms on the involved side. Compression of the parietal and occipital lobes produces receptive dysphasia and occasionally flashes of light indicative of occipital lobe seizures.

Cushing and Eisenhardt's study of 19 patients led to a syndrome "fairly characteristic" of these lateral tumors of the velum:

1. Pressure symptoms with headaches tending to be ipsilateral;
2. Contralateral homonymous hemianopsia often bisecting the macula;
3. Contralateral sensorimotor hemiparesis more marked in the sensory sphere, associated in a few cases with trigeminal numbness;
4. Symptoms suggesting cerebellar involvement in more than half of the cases; and
5. Almost invariably, paralexia increased by operation when the tumor, as it commonly does, occupies the left hemisphere.

The most common initial symptom is headache. This was the presenting complaint in six of 10 patients at Mayo Clinic and was present in all the seven patients at Cleveland Clinic with lateral ventricle meningiomas. Other initial symptoms were visual difficulty, seizure, malaise and weakness.

Preoperative symptoms again show headache to be the most common complaint, with personality changes and visual disturbances the common disabling affects. The sensory symptoms included subjective numbness or paresthesia of the side of the body contralateral to the location of the intracranial tumor.

Neurological signs were numerous, but contralateral homonymous hemianopsia was the sign of greatest value in clinical localization of the tumors. The hemianopsia varied in extent, but was typically evident in the lower quadrants with slight incongruity and macular sparing. Papilledema was noted in four of 10 patients at Mayo Clinic.

Diagnosis

Due to the variety of presenting symptoms and physical findings, these tumors are difficult to diagnose clinically without CT scanning. The complaints by some patients are vague and complicated by psychiatric disorders. Accurate diagnosis and localization are important, and the differential diagnosis can be challenging. Even with CT scanning, arteriography and ventriculograms, the correct diagnosis still may be unattainable until actual removal of the tumor.

In summary, intraventricular meningiomas are a clinical rarity which produce a multitude of presenting complaints. These tumors grow to a large size before symptoms appear, and are disabling or fatal if untreated. Surgical removal is indicated. The long-term complications postoperatively are minimal, with only homonymous hemianopsia being permanent.

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Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

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Special Article

Is There A Change In West Virginia Fetal Mortality?

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Overall fetal mortality ratios remained stable in West Virginia from 1974 to 1979. In this study, fetal deaths were examined by birthweight for the six-year period. Findings suggest that improved survival of the term-weight fetus may be disguised by a two-fold increase in reported deaths for the less-than-1,000-gram fetus.

COOPERATION between practicing physicians, the West Virginia State Department of Health and the state's major universities has effected an informal network of referral and consultation for both high-risk pregnant women and newborns throughout West Virginia since 1976. This cooperative effort occurred simultaneously with a sharp reduction of 36 per cent in the state's neonatal mortality rate between 1974 and 1979. However, West Virginia's fetal mortality ratios remained virtually unchanged (Figure 1) while fetal mortality ratios for the United States as a whole declined 16 per cent. Lack of progress in the reduction of West Virginia's fetal mortality prompted our concern and subsequent examination of the state's fetal deaths by birthweight. Our findings suggest that reported 1979 fetal deaths comprise a remarkably different population of deaths than those reported in 1974.

Fetal death certificates from the West Virginia State Department of Health were obtained for 1974 through 1979. The certificates were grouped by birthweight for four major categories including: less than 1,000 grams, 1,001-2,500 grams, greater than 2,500 grams, and unknown birthweight. Annual totals for each year were obtained and compared with all other years.

Improved reporting on fetal death certificates is evidenced by a reduction in the number of fetal deaths reported with birthweight marked "unknown." In 1974, 14 per cent of fetal death certificates showed birthweight "unknown," but by 1979 only seven per cent were "unknown." The "unknown" group presents a peculiar problem to the investigator. Are these deaths evenly distributed among the different weight groups under examination? Follow-up of inaccurate neonatal death certificates in Georgia showed that underreporting was slightly skewed to small infants.[1] Should this finding hold true for fetal death certificates, one may presume that about 25 per cent of those formerly "unknown" were actually fetal deaths among less-than-1,000-gram fetuses.

There was a major increase in the number of tiny fetal deaths between 1974 and 1979. In 1974, 68 fetal deaths weighed less than 1,000 grams, but by 1979 there were 135 fetuses in this category. Even if allowances were made for an unusually large proportion of "unknowns" in this weight group, increase in fetal deaths between 1974 and 1979 would still be 82 per cent. The sharp increase accounts for the fact that whereas the less-than-1,000-gram group made up only 22 per cent of all fetal deaths in 1974, by 1979 41 per cent of all fetal deaths weighed less than 1,000 grams (Table). Should these products of conception have been born alive, chance of survival to 28 days would have been less than three in 10.[2]

Remarkably little change was observed in the fetal mortality picture of fetuses in the 1,001-to-2,500-gram group. In 1974, there were 100 deaths in this group. In 1979, there were 106 deaths reported. In both index years the group

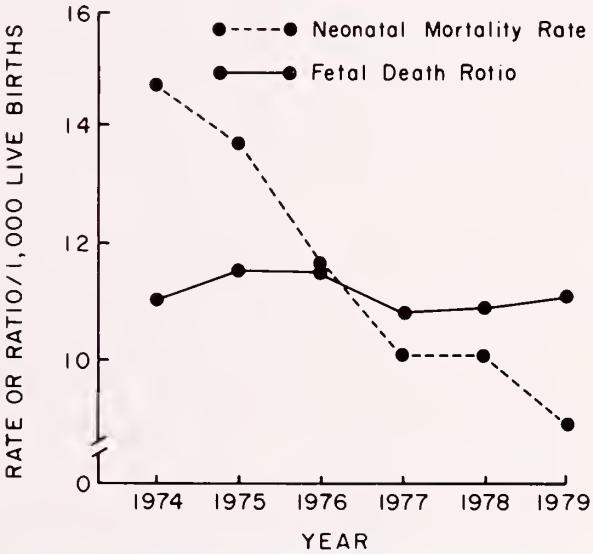


Figure 1. Neonatal mortality rate and fetal mortality ratio per 1,000 live births in West Virginia, 1974-1979.

accounted for 32 per cent of all reported fetal deaths. Prognosis for live-born infants of this weight has improved tremendously in West Virginia as in the nation as a whole. Nevertheless, live-born infants in this group die 13 times as frequently as infants born at term.

A precipitous 35 per-cent reduction in the mortality ratio of fetuses greater than 2,500 grams is notable between 1978 and 1979 in West Virginia. In 1978, there were 104 deaths in this group, but in the following year there were only 68. Reduction in fetal deaths for this term or near-term group gives health care providers some assurance that better antenatal and intrapartum care are improving the outlook for the most viable products of conception. Indeed, in some countries, fetal deaths approximating this weight are the only deaths included in vital statistics tabulations. It is presumed that these "stillbirths" are more preventable than fetal wastage in early pregnancy. In fact, argument could be made that much fetal mortality in early pregnancy is the natural consequence of fetal anomalies incompatible with life. Stillbirths, on the other hand, often are associated with correctable medical problems in late pregnancy and trauma during the intrapartum period.

This welcome improvement in West Virginia's stillbirth rate, however, is not part of any detectable trend. Between 1974 and 1978 the number of stillbirths hovered around 100 per year, making up about 30 per cent of all fetal deaths. While we know that the drop in stillbirths between 1978 and 1979 coincides with a major collaborative effort among providers in all sectors to improve the identification and labor surveillance of high-risk pregnant women,[3] two years of data can only hint at an association. Cautious optimism is especially important in light of the overall stagnant trend for the previous five years. Nevertheless, future changes in this part of the fetal mortality ratio should be observed carefully.

Our findings raise several interesting questions. A steady increase in the number of less-than-1,000-gram fetal deaths encourages speculation about the composition of the "new" group. Do the figures record an actual increase in second-trimester fetal wastage? Or have tiny fetal deaths always been more prevalant than indicated in vital statistics? Perhaps practitioners are more prompted to report small fetal deaths now that neonatal intensive care has demonstrated that even very small prematures can survive infancy to lead normal lives. In other

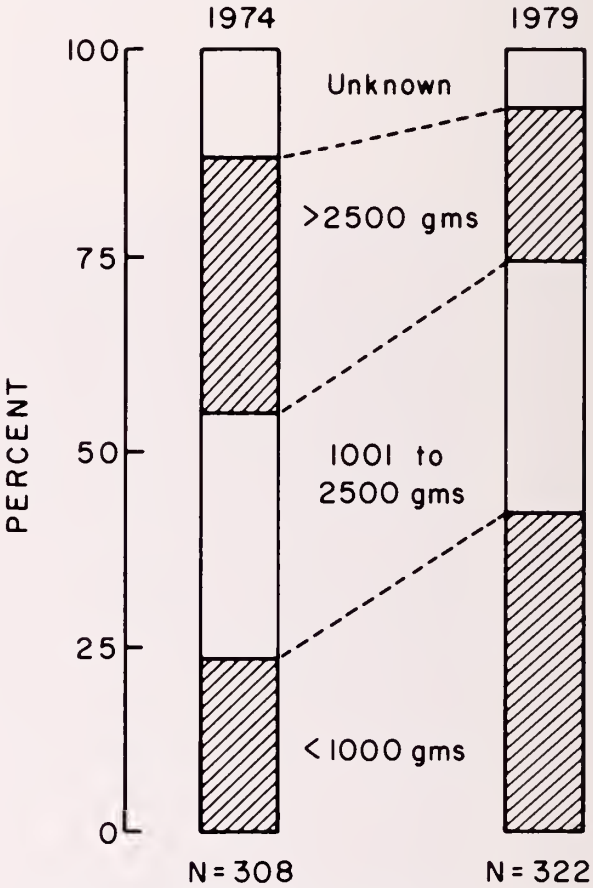


Figure 2. Percentage distribution of fetal deaths by birthweight, 1974-1979.

TABLE

West Virginia Fetal Deaths by Selected Birthweight Categories, and Births, 1974-1979

	<1000		1000-2500		>2500		UNKNOWN		TOTALS		BIRTHS
YEAR	#	%	#	%	#	%	#	%	#	%	#
1974	68	22	100	32	98	32	42	14	308	100	27636
1975	71	22	101	31	108	34	42	13	322	100	27960
1976	99	30	99	30	94	28	39	12	331	100	28586
1977	115	35	80	25	90	28	41	13	326	100	30020
1978	105	33	96	30	104	33	14	4	319	100	28950
1979	135	41	106	32	68	20	23	7	332	100	29726

words, there may have been an attitudinal change over the past six years viewing the less-than-1,000-gram fetal death now more as a "lost life" rather than, as formerly, an accident of pregnancy. Perhaps the increase in less-than-1,000-gram fetal deaths reflects an increase in second-trimester abortions. Detailed study of a sample from the less-than-1,000-gram group should be conducted to see if there are any patterns confirming all or any of these reasons for the steadily reported increase in less-than-1,000-gram fetal deaths.

In addition to the questions raised by our findings, several conclusions also may be drawn. We can report confidently that recorded fetal deaths in 1974 differed a good deal from those reported in 1979 (Figure 2). While the overall fetal mortality ratio was about the same for both years, the proportion of deaths less than 1,000 grams was nearly twice as great in 1979 as in 1974. This big increase in reported deaths for the small fetus disguised an improved outcome for the term-weight fetus. In 1979, the proportion of fetal deaths in this latter group was only about two thirds of what was experienced in 1974 even though the drop in 1979 was not part of a trend. We feel that annual examination of fetal deaths by birthweight could yield important information about the population of fetal deaths reported for the overall fetal death ratio.

1. Center for Disease Control, "Underreporting of Neonatal Deaths—Georgia" — *Morbidity and Mortality Weekly Report* 1979, 28:253-254.

2. Unpublished Data, West Virginia Department of Health.

3. The West Virginia Improved Pregnancy Outcome Project is a federally funded program for continuing perinatal outreach education from West Virginia State Health Department, West Virginia University Medical Center, Charleston Area Medical Center and Cabell-Huntington Hospital.

Correction

The following corrections should be noted for the scientific article entitled, "Kawasaki Disease: A Case Presentation and Review of the Literature," by M. B. Ayoubi, M. D., and H. Tom Reynolds, M. D., appearing in the June issue of *The Journal*.

On page 137, under the sub-heading of "Hospital Course," the amount of aspirin should have been two and one-half *grains* (not grams).

On page 138, under the sub-heading of "Follow-up Examinations," the amount of aspirin should have been two and one-half *grains* (not grams). Also, the last line on the page should have been: (2) bilateral conjunctival *injection* (not infection).

The Journal regrets these errors.

A message from . . .

The President

GOODBYE

Time flies and a year goes by. The year has been one of many joys, some frustrations and plenty of time spent.

JOYS: The many friends my wife and I have met through the year with visits to 26 different societies, seven state associations and two AMA meetings will be long remembered. For all the courtesies rendered by many we give our thanks.

FRUSTRATIONS: Efforts to obtain an increase in Medicaid reimbursement remain in limbo. The Governor and Welfare Commissioner made specific legislative proposals, but budget questions persist at state and federal levels. I find it personally difficult to render service with limitations under which we labor. I'll let each of you decide, but if a patient is accepted, be the good physician you should be and offer nothing but the best of your ability. Do not measure care in dollar reward.

ACCOMPLISHMENTS: Beginnings of an impaired physician program; a new insurance program; development of an audit, budget and investment concept; the headquarters building initiation, and improvement of JCAH inspections stand out in my memory. The highlight of my year was to be invited as speaker at Marshall University's first Medical School graduation.

THANKS: My thanks to many individuals for their help throughout the year. The list is too long to name but their unselfish service is sincerely appreciated.

My thanks to a devoted staff. We can be proud of one of the finest execs in the business, Charlie; his number one girl, Mary, who is magnificent; our bookkeeper, Sue, a fantastic job of record keeping; our legal adviser, Bob, who keeps us from many mistakes, and last, but far from least, our *Journal* leg man, Custer, who fills in with an assist on many other jobs. A fine team the Association should acknowledge.

Lastly, my thanks to the hundreds of Auxiliary ladies. Everywhere one goes, there they are arranging flowers, selling AMA-ERF materials, fixing special dishes for some delicious meals or just improving the scenery by looking so lovely.

It's been a good year and I leave to Dr. John Markey a ship sailing with all systems "go." Thank you for the opportunity and honor of being your President.

L. Walter Fix, M. D., *President*

The West Virginia Medical Journal

Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

Constant, serious attention to doctor-patient rapport . . . continued emphasis on development of a strong legislative program . . . support for the American Medical Association . . . provisions for strong and effective professional liability coverage . . . planning for an Association headquarters building . . . a plea for more involvement in the political arena.

These have been key elements in another busy Medical Association year under the aggressive, dedicated leadership of L. Walter Fix, M. D., of Martinsburg. If Doctor Fix's 12 months as President have shown nothing else, they have underlined anew one clear and basic fact — the need for an ever-stronger Association to act on behalf of the state's physicians and those they serve is a growing and vital one.

DEDICATION AND CONCERN

At the Greenbrier this month, Doctor Fix will relinquish the Presidency to a successor who also will bring a wealth of background, understanding and leadership ability to the Association's highest office. John B. Markey, M. D., of Charleston has demonstrated, in serving the Kanawha Medical Society as President and in other key positions, his own dedication to patient care and the role of organized medicine in providing it.

His tenure in State Medical Association responsibilities — on the Committee on Medical Economics, as a Councilor and as Vice President and President Elect — also have won him high marks. He'll bring to the Presidency a different kind of intensity, perhaps, and — as is the case each year — probably thoughts about a realignment of some priorities. But Doctor Markey's professional record in general surgery is deeply rooted in what medicine, as Doctor Fix put it, "is all about" — patient care, and a deep feeling of concern for and interest in the patient.

Doctor Fix's record over the past 12 months speaks for itself. He visited about two dozen of the Association's component societies, and few Presidents have spoken to the state's doctors with more enthusiasm and vigor. The response to his leadership also is clear. Despite a substantial dues increase — the Association's first since 1975 — and a complete, sweeping change in the Association-endorsed professional liability insurance coverage — this organization has held its membership in impressive fashion. Significantly, the AMA membership in West Virginia also has held its own — and hopefully will show another increase by the end of 1981.

Perhaps the most significant major decision Doctor Fix and others in Association leadership faced this year was that involving liability insurance. Again, there's no need to repeat that story here. But it took raw courage and insight to make the change in carriers for the endorsed

L. Walter Fix, M. D.

program which brought CNA into the picture with a new Managing General Agent concept, a five-year market guarantee, a consent-to-settle feature and other elements the Association firmly believes are in the best interests of its membership.

That call for more involvement by physicians Doctor Fix has voiced in every corner of the state will become ever more important, not only in risk management elements of the insurance program but across the board in Association activities. Much remains to be done in the legislative arena . . . in continued strengthening of medical education programs . . . in working relationships with other professional and voluntary health care organizations, as well as with the State Administration and its executive branches. The Association has a good track record of assistance to the AMA in its national legislative efforts — another area which must receive continued emphasis.

Doctor Fix will continue in a key leadership position as Chairman of the Council in 1981-82, so his talents and interests will remain on a front burner. He also serves as President of West Virginia State Medical Association Properties, Inc., the separate, support corporation the Medical Association has established for such purposes as continued development of Association headquarters planning. In that role he is supported by a knowledgeable Board that is demonstrating a sound approach to the building project.

As a constant umbrella, however, over the Medical Association's activities is that responsibility assigned it by its Constitution to "promote the public health." Close scrutiny of the many things the Association does, whether it be in education, legislative or other fields, will show that the public health is, indeed, the matter of ultimate concern.

Doctor Fix has kept that emphasis in clear perspective. There's no doubt that Doctor Markey will do the same.

FETAL MORTALITY

A fetal death is primarily a family tragedy that puts the physician in the role of supporting the parents and advising them as to what to expect with the next pregnancy. However, there is also the large picture, as demonstrated in Rosalind Parkinson's paper in this issue of *The Journal*. There are changes in the frequency and pattern of fetal mortality in West Virginia, as in the nation, with a satisfying improvement during the 1970s.

Physicians, however, still don't always do one thing well. They don't always fill out the certificate adequately. There are few rewards for doing so. Nevertheless, it's a job that needs to be done, and needs to be done right. As shown in Parkinson's paper, the results can be of significant use.

PRIVATE PRACTICE

This writer has long had an uncomfortable feeling that many . . . may not understand the words "private practice" to mean what they mean to the medical profession. The meaning is clear enough to physicians, as are the meanings of the words "intrusion" and "invasion" when they are used in connection with private practice. But sometimes a suspicious nonprofessional public seems not really to appreciate why it is that physicians are so protective of what they call private practice and why they are so defensive of it against any intrusion or invasion. This might at least partially explain why there is not stronger or more obvious support for private practice by the public . . .

Miscommunication can come about when the same words carry different messages to different people, possibly because they may have different points of reference or simply because most of us have a tendency to see only what we want to see and to hear only what we want to hear. One cannot help wondering whether some of the nonprofessional public may be getting a different message when the medical profession speaks of private practice and deplores intrusions and invasions by government and others.

The words themselves can suggest that something is being protected or maybe even hidden from outside interference or even outside awareness. After all, the word "private" can carry a message such as "keep out," "it's none of your business;" intrusions can imply entry where one is not welcome; and the word "invasion" implies a more forceful effort at overcoming resistance to an unwanted entry. In each instance there is a suggestion that something is being protected . . . Crassly, it might be suspected that what is being protected is the financial interests of physicians.

It is certainly true that something is being protected under the rubric of private practice . . . For the record, this writer believes that what doctors are actually trying to protect is something very central to the practice of medicine—that is, a physician's ability and freedom to provide what he or she believes to be the best possible care for

each individual patient. This is fundamentally an individual matter between each physician and each patient, and any outside interference is regarded as an intrusion or invasion into something that is at the heart of good patient care and good medical practice.—*Guest editorial. The Western Journal of Medicine, June, 1981.*

Our Readers Speak

Troubled By Editorial

I was very much troubled by the editorial in the May issue of *The West Virginia Medical Journal* entitled "State Charity." As a matter of fact, I was embarrassed by it and hope that none of my friends or colleagues outside the medical profession would see it if it truly represented the attitude of the medical profession of West Virginia. This article was criticizing the broad spectrum of services offered by the West Virginia Department of Welfare Social Service Plan. The gist of the article was that many of the services listed should not be taken on by the Department of Welfare. Rather, they should be left for the church and the neighborhood to accomplish. Services that the author of the article felt were inappropriate for the West Virginia Department of Welfare to take on included such things as community delinquency services, educational and vocational training services, institutionalization, admission and after-care services, etc. The feeling of the article seemed to be that if the Welfare Department attempted these services it would then deprive or prohibit the community from participating in such services and thereby prevent acts of charity by the community.

It is my feeling that this assumption simply is not in keeping with reality. The services listed have been assumed by the Welfare Department as new attempts to meet the needs of the community that have not been met through other means. Thus, the Welfare Department is attempting to provide services where services have not been in the past. The Welfare Department is not trying to take away the privilege of giving of charity, of caring, but rather is filling a void created because these privileges have not been exercised in the past. Had charitable institutions, persons, organizations assumed these services and carried them out to any degree, the Welfare Department would never have taken them on. It is noble to think that we are charitable people, but, in reality, is this the case? Not long ago, when the pledge cards for United Funds were circulated, some were returned from physicians for amounts of only two or three hundred dollars for the year. What a small percentage of their overall income. Is a fraction of one per cent of one's income the type of charity that the editorial would like us to have? Is that the type of charity that would support the various services that the Department of Welfare is attempting to provide?

There is another reason that seems appropriate for the Department of Welfare to assume these services. Many of these services are needed most by clients whom they already serve, the disabled, disadvantaged, the ill, the single families, etc. It is my impression that the Welfare Department has the perspective and the personnel and the knowledge of channels within the state to better assess the needs for various services and to implement them. Services organized by smaller charitable institutions, foundations or individuals frequently are very sporadic. As I see it, the charitable individuals and institutions do not have to be in competition with the Department of Welfare, but rather can complement it. Each can augment the other's services. For example, in Beckley the Welfare Department may refer a transient person who has no income to the Salvation Army for assistance. They may refer this person to the Haven of Mercy for a place to stay. On the other hand, people coming to the Haven of Mercy on their own may be referred to the Welfare Department to meet certain of their needs. Programs implemented by the Welfare Department also could be carried on by individuals volunteering time and money. Another example of this is the Welfare Department in Beckley, which has a volunteer coordinator who is able to bring together the services of various people volunteering to help. In their telephone reassurance program, she coordinates the efforts of many volunteers, and contacts many elderly on a daily basis.

Rather than criticizing the Department of Welfare for a creative attempt to address areas of human need that have been neglected or inadequately dealt with by other agencies and institutions, one should compliment them and enthusiastically work hand in hand with them in order to create a more effective program and reach a broader number of people.

A. Ray Jacobson, M. D.
Division of Ob-Gyn
Southern West Virginia Clinic
Beckley 25801

Editor's Comment

Dr. A. Ray Jacobson is obviously not a "pinch-nosed shrew," a descriptive phrase used in the May editorial to describe someone from the Department of Welfare who might scold one of us selfish and ungenerous critics of the Welfare system. He manages the same effect very nicely, however, particularly in the second paragraph of his letter. I was almost ready to duck my head in shame.

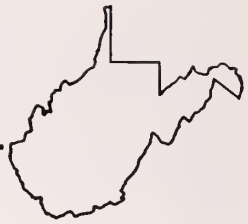
I tried to indicate in the editorial that it was extremely difficult to criticize or to fault any one of the programs. It was only when the entire conglomeration was considered as a unit that one became a little bit nauseated. Doctor Jacobson is apparently of the opinion that if one is not totally and completely charitable, and charitable in his mold or that of the Welfare Department, one should be ashamed and go hide his or her head.

Perhaps the editorial should have pointed out that, although all of the programs had some merit, some of them had more merit than others and that the degree of enthusiasm one might be able to generate for one might not be the same as that one might feel for another. It will be interesting to observe the Welfare Department picking and choosing between which programs might be of greater or lesser value when and if President Reagan's Block Grant Program is passed into law. Under the block grant proposal, money will be dispensed in very general categories and no funds will be targeted for any specific programs except in some special circumstances.

In 1980, the Nation as a whole awoke to the fact that it is not rich enough to engage in unlimited charity. West Virginia, by any measure, is not a wealthy state. We should have no pretense that we are wealthy. Paying taxes does little to stir those warm feelings one gets from a truly charitable act. For the giver, those warm feelings should be worth any denial occasioned by the charitable gift.

The Editor

GENERAL NEWS



1981 Convention Comes To 'Turning Point'

The State Medical Association's 114th Annual Meeting this year comes to a "turning point" as time, economics and other factors refashion the customary convention format, procedures and considerations.

The August 20-22 Annual Meeting at the Greenbrier has been shortened by one day for 1981; at least two names (instead of one as previously) will be presented for each of the major Association offices; and delegates will be voting on amendments to the Association's constitution and bylaws to open membership to osteopaths and students in osteopathic schools in West Virginia.

The Association's House of Delegates last year acted to shorten the 1981 convention by one day in order to help reduce expenses and encourage attendance. This year's Annual Meeting will begin on Thursday (August 20) instead of Wednesday as in the past.

In 1980, the House also provided, beginning in 1981, for submission by the Committee on Nominations of at least two names for the Association offices of Vice President, Treasurer, American Medical Association Delegate and AMA Alternate. Also in 1980, the proposed amendment for osteopathic membership was introduced and, because a constitutional amendment must lie over for a year, will be put to vote by the House this year.

AMA President to Speak

Dr. Daniel T. Cloud of Phoenix, Arizona, President of the AMA, will address the first session of the House of Delegates Thursday afternoon, and Dr. L. Clark Hansbarger, Director of the West Virginia State Department of Health, will deliver the keynote Thomas L. Harris Address at 9 A. M. opening exercises on Friday, August 21.

Dr. John B. Markey of Charleston, a surgeon, will be inaugurated as President during the second House session Saturday afternoon. He will succeed Dr. L. Walter Fix of Martinsburg. A native of Sharples, in Logan County, Doctor Markey is a former Chief of Staff at Charleston Area Medical Center and a past President of the Kanawha Medical Society. He served on the Association's Council for two years.

The number of general scientific sessions for 1981 has been reduced from three to two, and will be held on Friday (following Doctor Hansbarger's address) and Saturday mornings with elimination of the previous Thursday morning scientific session.

Scientific session speakers, who have been announced in previous issues of *The Journal*, will address such topics of interest as impotence, the handicapped, rehabilitation, bone tumors, malpractice and effective communication. Some of these speakers also will give talks at scientific section and society meetings being held in conjunction with the convention.

In all, some 13 sections and societies will hold breakfast and other meetings on Friday and Saturday. Several Association committees also will be meeting during the convention.

John B. Markey, M. D.

Doctor Fix will deliver his Presidential Address at the second House session on Saturday.

Scientific Exhibits

Scientific exhibits, again to be housed in Eisenhower Hall, will be open from 1 to 5 P. M. on Thursday, and from 8:30 A. M. to noon on Friday and Saturday. In order to provide convention registrants with ample opportunity to visit the exhibits, coffee breaks for that purpose have been scheduled during the general scientific sessions. The two general sessions Friday and Saturday mornings will be held in the theater, which adjoins Eisenhower Hall.

The Association's Council will hold a preconvention meeting at 9:30 A. M. Thursday.

For the names of speakers and other convention activities, see the official program and related stories in this issue of *The Journal.*

Two NIH Research Grants Awarded To Marshall

National Institutes of Health (NIH) research grants have been awarded to two Marshall University School of Medicine faculty members, Dean Robert W. Coon, M. D., announced.

Dr. Peter J. Kasvinsky, Assistant Professor of Biochemistry, received a three-year grant in the amount of $146,696, while Dr. Peter J. Knott, Assistant Professor of Pharmacology, received a three-year award for $141,512.

These grants, along with a similar one awarded earlier this spring to Dr. Michael R. Moore, Assistant Professor of Biochemistry, bring the school's new NIH-sponsored research funds to nearly $400,000, Doctor Coon said.

Kasvinsky's award is for a study of "Enzymes Regulating Glycogen Metabolism." Knott's research, titled "Brain Serotonin-Dopamine Interactions and Behavior," involves the study of these two neurotransmitters.

Convention Timetable

The first general scientific session will follow 9 A.M. opening exercises on Friday, August 21. The Saturday session will begin at 9:30 A.M.

The first session of the House of Delegates will be on Thursday afternoon, August 20, beginning at 2:30. The second session will be on Saturday afternoon beginning at 3:00.

AMA Leader, Doctor Flood Honored In Weirton

Dr. Harrison L. Rogers, then Vice Speaker for the House of Delegates of the American Medical Association, was guest speaker for the recent ninth annual recognition dinner in Weirton.

Doctor Rogers, since named Speaker of the AMA House, also was presented an honorary degree from West Virginia Northern Community College in Weirton during the affair, which was sponsored by the Weirton Medical Center's Department of Family Practice and the College.

Also honored were:

Dr. Richard E. Flood, family physician in Weirton for more than 30 years and currently a Delegate of the State Medical Association to the AMA; Dr. Daniel B. Crowder, President of West Virginia Northern Community College; Gretchen O. Lewis, State Workmen's Compensation Fund Commissioner; and the local Junior Achievement program.

Terry L. Thistlethwaite, President of the Weirton campus, WVNCC, presented Doctor Flood, a Past President of the State Medical Association, with a plaque "in appreciation for dedicated community service to the individual who has gone one step beyond his professional duties and expanded his concerns to all segments of the community."

Doctor Rogers, an Atlanta surgeon, also addressed the Weirton Rotary Club and participated in a press conference while in Weirton.

House of Delegates To Meet Twice During Meeting

The first session of the House of Delegates during the Annual Meeting at the Greenbrier will be convened at 2:30 P.M. on Thursday, August 20. The second and final session of the House of Delegates will be held at 3 P.M. on Saturday, August 22.

Luncheon For Past Presidents

A luncheon honoring Past Presidents of the West Virginia State Medical Association will be held at the Greenbrier on Friday, August 21, during the 114th Annual Meeting.

Dr. Stephen D. Ward of Wheeling, Immediate Past President, will preside, and invitations have been extended to all the Association's Past Presidents.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal).

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

Sept. 11-12, Charleston, Allied Health Education Symposium — Directions for the Eighties

Sept. 25-26, Morgantown, WV Chapter, Am. College of Surgeons

Sept. 26, Morgantown, Stroke and Transient Ischemia Attacks

Oct. 10, Morgantown, Acute Bronchitis and Asthma

Oct. 15-16, Morgantown, 7th Annual Hal Wanger Family Practice Conference

Oct. 17, Morgantown, Orthopedics for the Family Practitioner

Oct. 31, Morgantown, Urinary Tract Infection, Prostatic Hyperplasia, Chronic Airway Obstruction

Nov. 6, Morgantown, Internal Medicine Day

Nov. 7, Morgantown, Congestive Heart Failure, Coronary Atherosclerosis, Angina Pectoris

Nov. 13-14, Morgantown, Sports Medicine Symposium

Nov. 14, Morgantown, Pneumonia; Diabetes Mellitus—Adult Onset; Noninfectious Gastroenteritis and Colitis

Dec. 5, Charleston, Arthritis Foundation—Scientific Meeting

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, Upshur-Buckhannon Middle School, 3rd Thursday, 7-9 P. M.—August (vacation)

Sept. 17, "Trauma Management in Community ER" (speaker to be announced)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M.—August (vacation)

Sept. 9 (to be announced)

Oct. 14, "Clinical and Personal Management of Asthma," Dominic Gaziano, M. D.; Elizabeth Annie, R.N.

Madison, Madison-Danville Junior High School, West Madison, 2nd Wednesday, 7-9 P. M.—Aug. 12, "Cardiac Monitoring in a Community Hospital," Stafford Warren, M. D.

Oak Hill, Oak Hill High School (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — August 25, "Interpretation of Lab Tests," Bobby Lee Caldwell, M. D.

Sept. 22, "Hypertension," Stafford Warren, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 11 A. M.-1 P. M.—August (vacation)

Sept. 16, "Clinical and Personal Management of Asthma," Harry K. Tweel, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M.—August (vacation)

Sept. 23, "Clinical and Personal Management of Asthma," Bippin Avashia, M. D.; John Heavener

Williamson, Williamson Junior High School, 1st Thursday, 6-8 P. M.—Aug. 6, "Drug Abuse: Update on Recognizing and Treating Street Drugs Patients," David Walker, M. D.

Sept. 3, "Allergy Update," Joseph Skaggs, M. D.

WVU Football Weekend CME Sessions Scheduled

Football weekend continuing medical education sessions have been scheduled at the West Virginia University Medical Center in Morgantown for the coming season.

"Responding to a desire by some physicians to combine continuing medical education with home football games, we have developed a series of six Saturday morning CME sessions," said Robert L. Smith, M. D., Assistant Dean for Continuing Medical Education.

The schedule of CME topics, with the home football game designated in parentheses, follows:

September 26, "Stroke and Transient Ischemia Attacks" (Colorado State); October 10, "Acute Bronchitis and Asthma" (University of Pittsburgh); October 17, "Orthopedics for the Family Practitioner" (Virginia Tech-Homecoming);

October 31, "Urinary Tract Infection," "Prostatic Hyperplasia" and "Chronic Airway Obstruction" (East Carolina State University); November 7, "Congestive Heart Failure," "Coronary Atherosclerosis" and "Angina Pectoris" (Temple University); and November 14, "Pneumonia," "Diabetes Mellitus—Adult Onset" and "Noninfectious Gastroenteritis and Colitis" (Rutgers University).

The instructional fee (including parking) for all six sessions is $136; for each session individually, $31.

Football tickets may be purchased for $11 each; luncheon tickets, $8 each.

"The topics to be addressed in five of the sessions are 13 of the top 15 diagnoses responsible for hospital admissions of Medicare and Medicaid patients, October-December, 1980, as reported by the West Virginia Medical Institute," Doctor Smith observed.

The remaining session on October 17, following the Hal Wanger Family Practice Conference, will be devoted to "Orthopedics for the Family Practitioner" as noted.

Each CME session meets the criteria for three hours of Category 1 credit toward the Physician's Recognition Award of the American Medical Association.

For registration and additional information, contact the WVU Office of Continuing Medical Education in Morgantown.

Nominating Committee To Meet On Friday, August 21

The State Medical Association's Committee on Nominations will hold a 5 P.M. meeting on Friday, August 21, in the Washington Room of the Greenbrier.

Under a 1980 By-Laws amendment, the Committee will submit to the House of Delegates at least two nominees for the following offices: Vice President and Treasurer, and Delegate and Alternate to the American Medical Association. Only the name of one nominee will be necessary for the President Elect.

Association By-Laws also provide that nominations may be made from the floor for these offices, to be filled by the House in balloting at its final session on Saturday, August 22, the final day of the Association's 114th Annual Meeting.

Dr. Joseph A. Smith of Dunbar will serve as Chairman of the Committee on Nominations, with other members to include: Drs. Carlos L. Vasquez of Weirton, Ralph W. Ryan of Morgantown, Dewey F. Bensenhaver of Petersburg, Mehmet V. Kalycioglu of Shinnston, R. Paul Bennett of Webster Springs, Joseph T. Skaggs of Charleston and T. Keith Edwards of Bluefield.

L. Walter Fix, M. D., of Martinsburg, the State Medical Association's President, urged continued American Medical Association involvement in continuing medical education as he testified in June before a reference committee during the AMA House of Delegates' Annual Meeting in Chicago.

Auxiliary Completes Program For 57th Annual Meeting

Mrs. Harry S. Dvorsky of San Leandro, California, will be among honor guests when the Auxiliary to the West Virginia State Medical Association holds its 57th Annual Meeting at the Greenbrier in White Sulphur Springs August 20-22.

The meeting again will be held concurrently with the Annual Meeting of the State Medical Association. Mrs. Dvorsky was installed in June as the new President of the American Medical Association Auxiliary.

Also addressing the Auxiliary will be Mrs. Charles A. Prater of Jellico, Tennessee, President of the Southern Medical Association Auxiliary.

More than 200 spouses of physicians are expected to attend the Auxiliary's business sessions, over which Mrs. Gary G. (Ruth) Gilbert of Huntington, the Auxiliary's President, will preside.

An invitation has been extended to all Auxiliary members to attend the first session of the State Medical Association's House of Delegates on Thursday, August 20, at 2:30 P. M. in Chesapeake Hall. Dr. Daniel T. Cloud, AMA President, will be the principal speaker. Auxiliary members also are invited to attend formal opening ceremonies of the Association's 114th Annual Meeting at 9 A. M. on Friday, August 21, in the theater. Dr. L. Clark Hansbarger, Director, West Virginia Department of Health, will deliver the ninth annual Thomas L. Harris Address.

Mrs. Gary G. Gilbert

Mrs. Harry S. Dvorsky

Mrs. Charles A. Prater

The keynote address by Mrs. Dvorsky will highlight the initial Auxiliary session at 9:30 A. M. on Thursday. Dr. L. Walter Fix of Martinsburg, President of the State Medical Association, will be recognized for brief remarks.

Mrs. Prater will make her address during the second general session Friday morning. During this session also, Mrs. Dvorsky will install Mrs. Logan W. Hovis of Vienna as President, and other new officers, and Mrs. Hovis will deliver her inaugural address.

For other scheduled business, sports and social activities, see the official Auxiliary program in this issue of *The Journal*.

Questionnaires Distributed For Newborn Study

Determining the incidence of Rh hemolytic disease of the newborn in West Virginia is one of the objectives of a questionnaire recently distributed by the Department of Community Medicine at West Virginia University Medical Center in Morgantown.

R. John C. Pearson, M.B., Professor and Department Chairman, said the questionnaire was sent to all known obstetricians and family physicians in the state who deliver babies.

Other purposes of the questionnaire, he observed, are to learn the methods used by physicians to determine fetuses at risk from Rh hemolytic disease, and to discover the current regimens for administering anti-D immunoglobulin (also known as *Rhogam*).

All physicians receiving the questionnaire are urged to complete and return same; physicians who do deliveries but who did not receive a questionnaire may contact the WVU Department of Community Medicine.

Physicians returning the questionnaire will receive a review of the latest knowledge concerning the topics in the questionnaire, and the findings from the study.

Meeting Program To Feature Liability Discussions

The matter of professional liability will be discussed from several different standpoints during the West Virginia State Medical Association's 114th Annual Meeting at the Greenbrier in White Sulphur Springs August 20-22.

As a late addition to the overall program, Thomas L. Miller, M.D., a general practitioner in Portland, Oregon, will discuss the "Professional Liability Program: A New Direction" in Chesapeake Hall at 4 P.M. on Thursday, August 20.

Doctor Miller's presentation will follow the first meeting of the House of Delegates set for 2:30 P.M. on Thursday. The Portland physician has played a leadership role in claim review panel activity that represents a key part of the risk management component in the Oregon State Medical Association/CNA Professional Liability Program.

Two of the presentations scheduled for the meeting's second general session on Saturday morning, August 22, also will deal with professional liability. Eric W. Springer, a Pittsburg attorney, will discuss "Avoiding the New Malpractice Pressures" in addressing a major challenge of the times for physicians.

He'll be followed by Leonard M. Davis, Ph. D., a Professor of Speech Communication at West Virginia University, with a discussion entitled "Why Can't People Get Things Straight? (A Relationship Between Communication and Malpractice Accusations)."

The three liability-related presentations reflect a couple of objectives set by the Program Committee in developing this year's convention program: first, to provide a more diversified offering touching on socio-economic and other issues as well as strictly medical topics; and second, to tie such presentations to specific, major topics of current interest and concern.

Marshall Appoints New Pediatrics Head

Dr. Martin R. Klemperer, formerly with the University of Rochester (New York) School of Medicine, has assumed the post of Pediatrics Department Chairman at Marshall University's School of Medicine, Dean Robert W. Coon, M. D., announced.

Doctor Klemperer joined the Marshall faculty July 1, succeeding Dr. Ruth C. Harris, the former Department head who retired.

"Highly regarded in his field, Doctor Klemperer has proved himself to be a dedicated teacher and has a most impressive record in published research articles," Doctor Coon said. "I'm very pleased to have him on our faculty and believe he and his family will be an asset to the community," the Dean added.

A native of New York City, Doctor Klemperer earned his undergraduate degree at Dartmouth College and M. D. degree from New York University School of Medicine, followed by residency training in pediatrics, medicine and hematology at Rochester's Strong Memorial Hospital and Boston's Children's Hospital Medical Center.

A member of the University of Rochester faculty since 1970, he was Professor of Pediatrics and of Medicine there before coming to Marshall. He taught at the Harvard Medical School from 1965 to 1970, and also at Emory University School of Medicine.

Doctor Klemperer is a member of several professional organizations, including the Society for Pediatric Research, and is serving on the Editorial Board of the American Journal of Pediatric Hematology-Oncology.

He is author or co-author of nearly 50 research articles and more than two dozen abstracts. His research area is children's cancer with a special interest in serum complement.

The 1981 Program Committee

Chairman of the Program Committee for the 114th Annual Meeting of the West Virginia State Medical Association is Dr. T. Keith Edwards of Bluefield. Other Committee members are Drs. Jerome C. Arnett, Jr., of Elkins, Ruth C. Harris of Huntington, Stanley J. Kandzari of Morgantown, John B. Markey of Charleston, and Harvey D. Reisenweber of Martinsburg.

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Basic Histology, 3rd Edition, by Luis C. Junqueira, M. D.; and Jose Carneiro, M. D. 504 pages. Price $15.50. Lange Medical Publications, Los Altos, California 94022. 1980.

Current Surgical Diagnosis and Treatment, 5th Edition. Edited by J. Englebert Dunphy, M. D.; and Lawrence W. Way, M. D. 1138 pages. Price $25. Lange Medical Publications, Los Altos, California 94022. 1981.

Stop Smoking, Lose Weight, by Neil Solomon, M. D., Ph.D. 188 pages. Price $10.95. G. P. Putnam's Sons, 200 Madison Avenue, New York City 10016. 1981.

Review of Medical Physiology, 10th Edition, by William F. Ganong, M. D. 628 pages. Price $17. Lange Medical Publications, Los Altos, California 94022. 1981.

Sports Events Again Planned For Annual Meeting

Golf and tennis competition again is scheduled during the State Medical Association's 114th Annual Meeting August 20-22 at the Greenbrier in White Sulphur Springs.

Drs. Joseph T. Mallamo of Fairmont and George A. Curry of Morgantown were co-winners of the Medical Golf Tournament during the 113th Annual Meeting last August; while Drs. E. Noel McIntosh and George W. Weinstein, both of Morgantown, will have an opportunity to defend tennis honors limited to doubles competition.

The Medical Association's Auxiliary likewise will offer golf and tennis doubles competition, with Mrs. Arthur A. Abplanalp of Charleston the defending golf champion, and Mrs. Thomas J. Janicki and Mrs. Carl J. Roncaglione, both of Charleston, the 1980 tennis winners.

Marshall Announces 36 New Class Members

Women comprise one-third of the 36 students admitted to the Marshall University School of Medicine Class of 1985, according to Cynthia Warren, admissions officer for the school.

The class, which begins its studies August 31, includes 34 West Virginia residents and two from nearby Lawrence County in Ohio.

Sixteen West Virginia counties are represented among the fall entering class members. Kanawha County with seven students accepted from Charleston is second only to Cabell, which has 10 Huntington-area students, in the number of students admitted to the class.

Other counties represented among the new class members are: Boone, Brooke, Gilmer, Hardy, Logan, Marion, Mason, Mercer, Mingo, Monongalia, Monroe, Putnam, Wayne and Wyoming.

The school received 555 applications from would-be medical students of which 385 were nonresidents. The admissions committee interviewed 184 of the applicants, including 27 nonresidents, for the 36 seats in the entering class, Miss Warren said.

The new class has an overall grade point average of 3.52 and a 3.47 grade point average in science, according to her statistics. The average age of class members is 23.8 years.

Eleven of the students attended Marshall University while eight took undergraduate work at West Virginia University. Other West Virginia schools represented include: Concord College, West Virginia Wesleyan College, Alderson Broaddus College, University of Charleston, West Virginia Institute of Technology and West Virginia State College.

Schools attended outside of West Virginia include: University of Cincinnati, College of Steubenville, Indiana State University, Medical

No Registration Fee for Members

Members of the West Virginia State Medical Association will not be assessed a registration fee for the 114th Annual Meeting at the Greenbrier in White Sulphur Springs, August 20-22.

Interns, residents and medical students also will be registered without charge.

There will be a registration fee of $50 for out-of-state physicians attending the meeting.

College of Georgia, Ohio State University, Randolph-Macon Woman's College, University of Michigan/Ann Arbor and University of Oregon.

The list of students in alphabetical order by county follows:

Boone — Nancy L. Joseph, Sylvester.

Brooke — Andrew H. Schindzielorz, Follansbee.

Cabell — David R. Ayers, Denise L. Baisden, Cheryl L. Cook, Scot D. Hines, Victor F. Nease, Michael J. Nerenberg, Stephanie A. Skolik, Helen R. Thornton and Kevin W. Yingling, all of Huntington, and Simon K. Chang, Lesage.

Gilmer — Carol A. Foster, Glenville.

Hardy — Dean H. Woodard, Mathias.

Kanawha — David W. Albright, Sara L. Casto, Reuben W. Holland III, Karen A. Johnson, Cheryl L. McCarus, Charles C. McCormick and Melanie A. Stephenson, all of Charleston.

Logan — Kevin S. Smith, Logan, and Ted B. Vance, Whitman.

Marion — Joedy L. Daristotle, Fairmont.

Mason — Lowell C. Shinn, Leon.

Mercer — Keno V. Romano, Athens.

Mingo — Lea Ann Moricle, Williamson.

Monongalia — E. Rhett Jabour and Sharon E. Pritchard, Morgantown.

Monroe — Terry G. Pritt, Pickaway.

Putnam — Scott L. Henson, Hurricane.

Wayne — Danny A. Rader, Huntington, and Randall A. Maynard, Kenova.

Wyoming — F. Mark Goodwin, Mullens.

Lawrence (Ohio) — Kevin J. Willis, Ironton, and James P. Viglianco, South Point.

WVU Medical School Faculty Promotions Announced

Awarded promotions or granted tenure are 97 faculty members from the four schools of the West Virginia University Medical Center.

The promotions and tenure grants, approved by the West Virginia Board of Regents, were announced in June by B. A. Nugent, Vice President for Academic Affairs, and Charles E. Andrews, M. D., then Vice President for Health Sciences at WVU.

Reviews of performances in teaching, research or public service are made within each of the schools before the Board of Regents receives the promotions and tenure recommendations.

Those promoted or granted tenure in the School of Medicine, effective July 1, include:

Albert Azzaro, Professor, Neurology; Daniel Banks, Adjunct Assistant Professor, Medicine; Carolyn E. Barnes, Associate Professor, Physical Therapy; John A. Belis, Associate Professor, Urology; Robert Bettinger, Associate Professor, Anesthesiology; James B. Blair, Professor, Biochemistry; Edward M. Bosanac, Associate Professor, Community Medicine; Sandy L. Burkart, Professor, Physical Therapy; Vincent Castranova, Adjunct Associate Professor, Physiology; Robert Cody, Professor, Otolaryngology; David F. Colvin, Associate Professor, Behavioral Medi-

In the left photo above, Stephen D. Ward, M. D. (left), of Wheeling and C. A. (Carl) Hoffman, M. D., Huntington, discuss issues before the House of Delegates during the June meeting of the American Medical Association in Chicago. Doctor Ward is a member of the AMA's Council on Legislation, and Doctor Hoffman, who served in 1972-73, is the only AMA President from West Virginia. In the center photo, G. A. Shawkey, M. D. (left), of Charleston, the State Medical Association's Treasurer; Jack Leckie, M. D., Huntington, Alternate Delegate to the AMA House; and Harry Shannon, M. D., Medical Association Vice President from Parkersburg, take a break between House sessions. Frank J. Holroyd, M. D. (left), AMA Delegate from Princeton, and John B. Markey, M. D., Medical Association President Elect from Charleston, exchange thoughts in the right photo.

cine and Psychiatry; Robert D'Alessandri, Associate Professor, Medicine; Anthony DiBartolomeo, Associate Professor, Medicine, granted tenure; Paul H. Dworkin, Associate Professor, Pediatrics;

John F. Foss, Associate Professor, Obstetrics and Gynecology; Maria Georgiev, Associate Professor, Medicine, granted tenure; Barbara D. Ingersoll, Associate Professor, Behavioral Medicine and Psychiatry, granted tenure; Gordon G. Keyes, Associate Professor, Pathology; Jim-Chul Kim, Associate Professor, Radiology; Martin J. Kommor, Associate Professor, Behavioral Medicine and Psychiatry, granted tenure; Roberto E. Kusminsky, Associate Professor, Surgery; James C. W. Lai, Associate Professor, Radiology, granted tenure; William A. Neal, Professor, Obstetrics and Gynecology, granted tenure; Philip R. Miles, Adjunct Professor, Physiology; Michael R. Miller, Associate Professor, Biochemistry, with tenure; Jovan Milutinovich, Professor, Medicine; Edwin Morgan, Professor, Medicine; Martha Mullett, Associate Professor, Pediatrics, granted tenure; William A. Neal, Professor, Pediatrics; Edward Petsonk, Adjunct Assistant Professor, Medicine; Carlin A. Pinkstaff, Professor, Anatomy; Peter Raich, Professor, Medicine, granted tenure;

V. K. Raju, Associate Professor, Ophthalmology; Mark J. Reasor, Associate Professor, Pharmacology and Toxicology, granted tenure; Robert B. Reger, Adjunct Assistant Professor, Community Medicine; John Rogers, Associate Professor, Medicine, granted tenure; Ronald A. Savrin, Associate Professor, Surgery; Stephen T. Slack, Associate Professor, Radiology, granted tenure; David J. Smith, Professor, Anesthesiology; William T. Stauber, Associate Professor, Physiology; Herbert A. Thompson, Associate Professor, Microbiology, with tenure; John S. Veach, Assistant Professor, Surgery; Brian Walker, Associate Professor, Medicine; David K. Walker, Associate Professor, Behavioral Medicine and Psychiatry, with tenure; Elizabeth R. Walker, Associate Professor, Anatomy, with tenure.

Clinical faculty promotions include:

Don L. Arnwine, Clinical Professor, Community Medicine; Edward J. Callahan, Clinical Associate Professor, Behavioral Medicine and Psychiatry; Thomas S. Clark, Clinical Assistant Professor, Family Practice; R. Brooks Gainer, Clinical Associate Professor, Medicine; Rafael Gomez, Clinical Assistant Professor, Medicine; Fernando G. Giustini, Clinical Professor, Obstetrics and Gynecology; William Hall, Clinical Associate Professor, Medicine; T. F. Hall, Clinical Professor, Otolaryngology; Sherman E. Hatfield, Clinical Associate Professor, Otolaryngology; J. K. Lilly, Clinical Associate Professor, Anesthesiology; Tony C. Majestro, Clinical Associate Professor, Orthopedic Surgery; Catalino B. Mendoza, Clinical Professor, Surgery; Michael Morehead, Clinical Associate Professor, Neurology; William C Morgan, Clinical Professor, Otolaryngology;

Bernadette R. Page, Clinical Assistant Professor, Surgery; Louis Palmer, Clinical Associate Professor, Medicine; Jack Pushkin, Clinical Associate Professor, Orthopedic Surgery; Carl J. Roncaglione, Clinical Professor, Orthopedic Surgery; Jose M. Serrato, Clinical Assistant Professor, Urology; Tahir Shafi, Clinical Associate Professor, Medicine; James T. Smith, Clinical Associate Professor, Radiology; David A. Stoll, Clinical Assistant Professor, Medicine; Jackie L. Summers, Clinical Professor, Urology; Stafford G. Warren, Clinical Professor, Medicine; Charles F. Whitaker, Clinical Associate Professor, Otolaryngology; James H. Wiley, Clinical Professor, Orthopedic Surgery; George Zaldivar, Clinical Associate Professor, Medicine.

Silver Nitrate Still Approved As Eye Medication

Here from L. Clark Hansbarger, M. D., West Virginia's Director of Health, is a notice listing silver nitrate as an appropriate medication to use for the prevention of inflammation of the eyes of the newborn.

Silver nitrate, which traditionally has been used for this purpose, was, by an oversight, omitted as a specifically-approved medication in S.B. 489 enacted by the 1981 Legislature. The purpose of the act was to offer alternatives to the use of silver nitrate in the eyes of newborns.

Here is the notice:

"Effective April 11, 1981, Chapter 16, Article 3, Section 10, of the West Virginia Code requires the Director of the Department of Health to establish a list of appropriate medications for prevention of inflammation of the eyes of the newborn.

"Pursuant to that statuory directive, I hereby certify that one per cent solution of silver nitrate is an appropriate and authorized medication for instillation in the eyes of the newborn."

Doctors Urged To Report Child Passenger Restraint Usage

During its 1981 regular session, the West Virginia Legislature passed, and Governor John D. Rockefeller IV signed into law, an Association-supported bill requiring the use of automobile child passenger restraints.

The law basically requires that children up to three years of age be secured in an approved child restraint system. Children from ages three to five must be secured at least by a seat belt.

Hopefully, the Medical Association feels, this law will have a salutary effect on the greatest cause of death and injury to young children.

To follow up on this act, the Medical Association leadership would urge all physicians, especially emergency room physicians and pediatricians, to inform the Association office of instances where restraints have prevented serious injury, and of unfortunate cases in which a lack of restraints has contributed to serious injury. Such information will enable the Association to seek changes to improve the law, if necessary, to make it more effective.

Physicians Participating In Radio Series

Physicians and allied health personnel are participating in a Charleston radio consumer education series, "You and Your Health."

The program is aired by WTIP Radio on Wednesdays from 12:05 to 12:30 P. M., with Nancy Hill of Charleston as hostess. Sponsors are the Kanawha Medical Society, Charleston Area Medical Center and Charleston Division, West Virginia University Medical Center.

The schedule for the next several months follows:

August 5, "The Continuing Controversy Over Cholesterol," Allen Schaffer, M. D.; August 12, "Exercise for the Bedridden Patient," Kathy Potterfield, P.T.; August 19, "Renewing Mental Health Workers in West Virginia," Judy Greenwood, Ph.D., and August 26 (no program);

September 2, "Sports-Related Injuries," William G. Sale, M. D.; September 9, "Birth Control Update," Bruce L. Berry, M. D.; September 16, "Fertility," Daniel A. Mairs, M. D.; September 23, "Update: Mental Retardation," Patti Boll, M. A., and September 30, "Lower GI Disorders," Brittain McJunkin, M. D.

Medical Meetings

Aug. 7-9—WV Hospital Reseach & Education Foundation, Inc., White Sulphur Springs.

Aug. 20-22—114th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.

Aug. 31-Sept. 3—Am. Hospital Assn., Philadelphia.

Sept. 12-15—Am. College of Radiology, Las Vegas.

Sept. 14-15—Am. College of Nutrition, Bethesda, Md.

Sept. 14-16—Am. Neurological Assn., San Francisco.

Sept. 14-17—Am. College of Emergency Physicians, New Orleans.

Sept. 20-24—Ky. Med. Assn., Louisville.

Sept. 21-24—Am. Academy of Family Physicians, Las Vegas.

Oct. 1-4—ASIM, New York City.

Oct. 3-11—Am. Assn. of Blood Banks, Chicago.

Oct. 11-16—Am. College of Surgeons, San Francisco.

Oct. 17-21—Am. Society of Anesthesiologists, New Orleans.

Oct. 20-24—Ky. Med. Assn., Louisville.

Oct. 21-25—Med. Society of Virginia, Norfolk.

Oct. 23-26—Indiana State Med. Assn., Indianapolis.

Oct. 25-29—Am. College of Chest Physicians, San Francisco.

Oct. 26-28—Am. College of Gastroenterology, Bar Harbour, Fla.

Oct. 30-31—Am. Academy of Allergy, Southeast Region (Allergy & Immunology for the Clinician), Hilton Head Island, S. C.

Oct. 31-Nov. 5—Am. Academy of Pediatrics, New Orleans.

Nov. 3-9—Am. Med. Women's Assn., Los Angeles.

Nov. 15-20—International College of Surgeons, Coronado, Calif.

Nov. 16-19—Am. Heart Assn., Dallas.

Dec. 4-5—Am. College of Chemosurgery, San Francisco.

Dec. 5-10—Am. Academy of Dermatology, San Francisco.

1982

Jan. 22-24—15th Mid-Winter Clinical Conference, Charleston.

Feb. 3-7—Am. College of Psychiatrists, Orlando.

March 5-10—Am. Society of Abdominal Surgeons, Las Vegas.

CONVENTION PROGRAM

114th ANNUAL MEETING

of the

West Virginia State Medical Association

THE GREENBRIER, WHITE SULPHUR SPRINGS

August 20-22, 1981

THURSDAY MORNING

August 20

(Eastern Daylight Time)

9:00-5:00—Registration, Registration Lobby.

9:30—Pre-Convention Meeting of the Council. Stephen D. Ward, M.D., *Presiding* (West Virginia Room, with Luncheon in Tyler Room).

THURSDAY AFTERNOON

1:00—Joint Meeting, West Virginia Committee for Perinatal Health and Medical Association Committee on Maternal and Perinatal Fetal Welfare. Alex Wanger, M.D., *Presiding* (Jackson Room).

2:30—First Session of the House of Delegates. L. Walter Fix, M.D., *Presiding* (Chesapeake Hall).

Invocation—Robert D. Hess, M.D.

Address: Daniel T. Cloud, M.D., President, American Medical Association.

Recognition of AMA-ERF Grants to the West Virginia University and Marshall University Schools of Medicine.

Business Meeting.

4:00—"Professional Liability Program: A New Direction." Thomas Miller, M.D., Portland, Oregon (Chesapeake Hall).

5:00—Resolutions Committee. Richard E. Flood, M.D., *Presiding* (Directors' Room).

FRIDAY MORNING

August 21

8:30-5:00—Registration, Registration Lobby.

Breakfast Meetings

7:30—West Virginia Academy of Ophthalmology and Otolaryngology. James R. Cook, M.D., *Presiding* (Spring Room).

7:30—Section on Internal Medicine. Maurice A. Mufson, M.D., *Presiding* (Tyler Room).

Guest Speaker: Bruce S. Chertow, M.D., Professor of Medicine; Chief, Section of Endocrinology, Marshall University School of Medicine, Huntington. Subject: "Wouldn't You Prefer to Have Oatmeal for Breakfast? The Role of Dietary Fiber in Diabetes Control."

7:30—Section on Dermatology. William A. Welton, M.D., *Presiding* (Eisenhower Parlor C).

Case Presentations.

7:30—Section on Surgery. Robert J. Reed III, M.D., *Presiding* (North Parlor).

Guest Speaker: Ellen E. Hrabovsky, M.D., Associate Professor of Surgery, West Virginia University Medical Center, Morgantown. Subject: "Common Pediatric Surgery Problems."

Opening Exercises

(Theater)

9:00—Call to Order—L. Walter Fix, M.D., President, West Virginia State Medical Association.

Invocation—Joe N. Jarrett, M.D.

Address of Welcome—L. Walter Fix, M.D.

Introduction of T. Keith Edwards, M.D., 1981 Program Committee Chairman, and other Members of his Committee.

"The Thomas L. Harris Address."

L. Clark Hansbarger, M.D., Director, West Virginia Department of Health. Subject: "Your Department of Health—Its Goals for the Future."

First General Session
9:45-12:30

Moderator: Stanley J. Kandzari, M.D.

9:45—William L. Furlow, M.D., Professor of Urology, Mayo Medical School; Vice Chairman and Consultant, Department of Urology, Mayo Clinic, Rochester, Minnesota. Subject: "Impotence with Regard to the Etiology, Diagnosis and Treatment."

10:30—The Reverend Harold Wilke, Executive Director, The Healing Community, White Plains, New York. Subject: "A Fuller Spectrum of Life for the Handicapped."

11:15—Coffee Break to Visit Exhibits.

11:35—Leslie F. McCoy, M.D., and Ralph H. Nestmann, M.D., Charleston. Subject: "How Can We Also Rehabilitate?"

12:30—Recess for Lunch.

FRIDAY AFTERNOON

12:30—Luncheon Honoring Past Presidents of the West Virginia State Medical Association. Stephen D. Ward, M.D., *Presiding* (Tyler Room).

12:30—Cancer Committee. Business Meeting. Alvin L. Watne, M.D., *presiding* (Washington Room)

12:30—West Virginia Medical Institute, Inc., Board of Trustees meeting. Harry S. Weeks, Jr., M.D., *Presiding* (Virginia Room).

1:00—West Virginia Chapter, American College of Emergency Physicians. H. A. Nabers, Jr., M.D., *Presiding* (Pierce Room).

Guest Speakers: David A. Labosky, M.D., Assistant Professor of Orthopedic Surgery and Chief of Hand Surgery, WVU Medical Center. Subject: "Treatment of Hand Injuries."

M. J. Godlewski, M.D., Nephrologist, Parkersburg: Subject: "Emergency Evaluation of Hypertension."

2:00—West Virginia Chapter, American Academy of Pediatrics. Herbert H. Pomerance, M.D., *Presiding* (Fillmore Room).

Guest Speaker: The Reverend Harold Wilke. Subject: "Conversations Between My Pediatrician and My Parents."

2:00—Section on Orthopedic Surgery. Bernard M. Swope, M.D., *Presiding* (West Virginia Room).

Guest Speaker: Rudolf K. Lemperg, M.D., Ph.D., Professor of Orthopedic Surgery, WVU Medical Center. Subject: "Arthritis, Pain and Interosseous Hypertension."

2:00—Section on Urology. Stanley J. Kandzari, M.D., *Presiding* (Jackson Room).

Guest Speaker: William L. Furlow, M.D. Subject: "Urinary Incontinence."

2:00—West Virginia District Branch, American Psychiatric Association. James M. Stevenson, M.D., *Presiding* (Lee Room).

Guest Speakers: Stuart Yudofsky, M.D., Vice Chairman, Department of Psychiatry, Columbia University, New York City. Subject: "ECT: Current Concepts and Research."

Edmund C. Settle, Jr., M.D., Assistant Professor of Psychiatry, WVU Charleston Division. Subject: "Tetracyclics and Other New Psychopharmacologic Agents."

Dr. Yudofsky. Subject: "Propranolol in the Treatment of the Violent and Uncontrolled Patient."

4:00—West Virginia Chapter, American Society of Internal Medicine. Alfred K. Pfister, M.D., *Presiding* (Tyler Room).

5:00—Committee on Nominations. Joseph A. Smith, M.D., *Presiding* (Washington Room).

FRIDAY EVENING

6:00—Cocktail Party. The University of Virginia Medical School Foundation. William C Morgan, M.D., *host* (Old White Club).

6:00—Les Batards Reception. L. Walter Fix, M.D, *in charge* (Virginia Room).

6:30—Cocktail Party. West Virginia University Alumni Association. John E. Jones, M.D., *in charge* (West Virginia Room).

6:30—Cocktail Party. West Virginia Chapter, Medical College of Virginia Alumni Association. Richard C. Rashid, M.D., *in charge* (Old White Patio).

9:30—Auxiliary "Monte Carlo Night," Cabell County, Host Auxiliary. Mrs. Charles E. Turner, *Chairman* (Chesapeake Hall).

SATURDAY MORNING
August 22

9:00-2:00—Registration, Registration Lobby.

Breakfast Meetings

8:00—West Virginia Gastrointestinal Society. James W. Manier, M.D., *Presiding* (Directors' Room).

Guest Speaker: Eugene D. Jacobson, M.D., Associate Dean, Research, University of Cincinnati College of Medicine. Subject: "Pathophysiology of Intestinal Ischemia."

8:00—West Virginia Radiological Society (Lee Room).

Second General Session

(Theater)

9:30-12:00

Moderator: T. Keith Edwards, M.D.

9:30—Rudolf K. Lemperg, M.D., Ph.D. Professor of Orthopedic Surgery, West Virginia University Medical Center. Subject: "Effects of Environmental Factors on Epidemiology and New Trends in the Treatment of Bone Tumors."

10:15—Eric W. Springer, LL.B., Pittsburgh, Pennsylvania. Subject: "Avoiding the New Malpractice Pressures."

11:00—Coffee Break to Visit Exhibits.

11:20—Leonard M. Davis, Ph.D., Professor, Department of Speech Communication, West Virginia University. Subject: "Why Can't People Get Things Straight? (A Relationship Between Communication and Malpractice Accusations)."

12:00—Recess for Lunch.

SATURDAY AFTERNOON

12:00—Publication Committee. Stephen D. Ward, M.D., *Presiding* (Jackson Room).

12:00—West Virginia State Society of Anesthesiologists. John F. I. Zeedick, M.D., *Presiding* (Directors' Room).

Guest Speaker: W. N. Walker, Jr., M.D., Chairman, State Medical Association Committee on Physician Services. Subject: "Present Status of the Impaired Physician Program."

3:00—Second and Final Session of the House of Delegates. L. Walter Fix, M.D., *Presiding* (Chesapeake Hall).

Invocation—Joseph T. Skaggs, M.D.

Presidential Address: L. Walter Fix, M.D.

Presentation of New Officers of Auxiliary to the West Virginia State Medical Association.

Presentation of Honor Guests.

Business Meeting.

Election of Officers.

Installation of John B. Markey, M.D., Charleston, as President of the West Virginia State Medical Association.

SATURDAY EVENING

6:30-7:30—Cocktail Party and Reception Honoring Officers of the West Virginia State Medical Association (Colonial Hall Terrace).

A WORD OF THANKS

The 1981 Program Committee, and the officers and members of the West Virginia State Medical Association, wish to acknowledge with sincere thanks grants received from the following firms to help support the Scientific Program for this year's 114th Annual Meeting.

ABBOTT LABORATORIES
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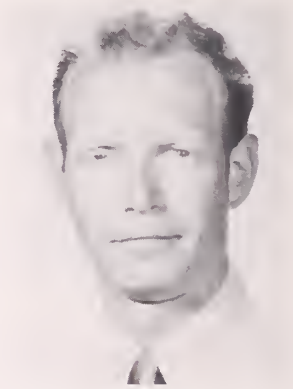
(The firms listed above are those which had allocated funds to the Scientific Program as this issue of the *The Journal* went to press. Additional contributors will be listed in the Official Program to be distributed at the Greenbrier.)

1981 PROGRAM COMMITTEE

T. Keith Edwards, M. D.
Bluefield
Chairman

Ruth C. Harris, M. D.
Huntington



Harvey D. Reisenweber, M. D.
Martinsburg

John B. Markey, M. D.
Charleston

Stanley J. Kandzari, M. D.
Morgantown

Jerome C. Arnett, Jr., M. D.
Elkins

DELEGATES AND ALTERNATES

BOONE (2)—Delegates, Manuel T. Uy and Robert B. Atkins, Madison. Alternates, Probhond Chinuntdet and Sruramloo Kesari, Madison.

BROOKE (2)—Delegates, Rogelio L. Velarde and Leticia Peralta-Velarde, Follansbee. Alternates, W. T. Booher, Jr., Wellsburg; and Ralph McGraw, Follansbee.

CABELL (13)—Delegates, Maurice A. Mufson, Jack Leckie, Ruth C. Harris, K. V. Raman, Sirous Arya and Kirk J. David, Huntington; W. W. Mills, Kenova; Bruce S. Chertow and Robert W. Lowe. Huntington; H. S. Mullens, Kenova; and Estelito B. Santos, William M. Jennings III and William T. Tweel, Huntington. Alternates, Ray M. Kessel, Talmadge R. Huston, Robert C. Nerhood, Albert C. Esposito, Thomas F. Scott, Joseph E. Ricketts, M. Bruce Martin, Florence K. Hoback, D. Sheffer Clark, Gary G. Gilbert, Robert W. Coon, James A. Coil, Jr., and David K. Heydinger, Huntington.

CENTRAL WEST VIRGINIA (4) — Delegates, Joseph B. Reed, Buckhannon; Yong Don Joo, Summersville; R. Paul Bennett, Webster Springs; and Clemente Diaz, Richwood. Alternate, Claude R. Davisson, Weston.

EASTERN PANHANDLE (5)—Delegates, George C. Soteropoulos, Francisco D. Sabado, Jr., Leo H. T. Bernstein, Jean P. Lucas and Ian J. MacQueen, Martinsburg.

FAYETTE (3)—Delegates, Saghir Ur Rehman Mir, Montgomery; and Teodorico Asinas and Joe N. Jarrett, Oak Hill. Alternates, Carl R. Adkins, Oak Hill; Afif S. Habash, Montgomery; and Serafino S. Maducdoc, Jr., Oak Hill.

GREENBRIER VALLEY (4)—Delegates, Houston B. Moore, Lewisburg; Dale G. Knutson, Robert K. Modlin and James Pfeiff, Ronceverte. Alternates, Richard F. Carter, White Sulphur Springs; Robert K. Scott II, Ronceverte; and Harvey A. Martin, White Sulphur Springs.

HANCOCK (4)—Delegates, Thomas J. Beynon, Carlos L. Vasquez, Antonio S. Licata and Richard E. Flood, Weirton. Alternate, Ray S. Greco, Weirton.

HARRISON (6)—Delegates, M. V. Kalaycioglu, Shinnston; Catalino B. Mendoza, Jr., and L. Dale Simmons, Clarksburg; Victorino D. Chin, Bridgeport; Robert D. Hess, Clarksburg; and David R. Hess, Bridgeport. Alternates, James Genin, John A. Bellotte and James L. Bryant, Clarksburg.

JEFFERSON (2)—Delegates, L. Mildred Williams, Charles Town; and S. K. G. Menon, Ranson.

KANAWHA (22)—Delegates, W. Alva Deardorff, South Charleston; Robert L. Ghiz, Carl B. Hall, and Sherman E. Hatfield, Charleston; George W. Hogshead, Nitro; Edward Jackson, St. Albans; Kenneth G. MacDonald, Sr., Jimmy Lee Mangus and John B. Markey, Charleston; Carl J. Roncaglione, South Charleston; Joseph A. Smith, Dunbar; Pat A. Tuckwiller, Echols A. Hansbarger, Jr., Donald E. Farmer, Adla Adi, George V. Hamrick, James W. Lane, Eric P. Mantz and Pejawar M. Rao, Charleston; Richard C. Rashid, South Charleston; and Joseph T. Skaggs and John F. I. Zeedick, Charleston. Alternates, Arthur A. Abplanalp, Charleston; R. S. Birckhead, Gauley Bridge; William H. Carter, Jacques Charbonniez and Robert J. Clubb, Charleston; William D. Crigger, South Charleston; Donald E. Cunningham, St. Albans; Jerry W. Edens, Elkview; John M. Hartman, Charleston; Reuben W. Holland, Jr., and Ralph J. Holloway, South Charleston; Thomas J. Janicki, Alfred J. Magee, Tony C. Majestro, Ralph H. Nestmann, Roger P. Nichols, Morris H. O'Dell and Richard H. Sibley, Charleston; George E. Toma, South Charleston; and Alfredo C. Velasquez and Ronald L. Wilkinson, Charleston.

LOGAN (3)—Delegates, Robert K. Scott, Logan; Rodney Stephens, West Logan; and Herbert D. Stern, Logan. Alternates, Carlos F. DeLara, Abelard A. Pelaez and Mark S. Spurlock, Logan.

MARION (5)—List of delegates and alternates unavailable.

MARSHALL (3)—Delegates, Kenneth J. Allen, Glen Dale; Jesus T. Ho, Moundsville; and Manuel Villaverde, Glen Dale. Alternates, Joe J. Ventosa, Erol Bastug and Ignacio Luna, Jr., Glen Dale.

MASON (2) — Delegates, Aarom Boonsue and David V. Cole, Pt. Pleasant. Alternates, Mark Cheng and Chaksupa Montrie, Pt. Pleasant.

McDOWELL (3)—Delegates, Muthusami Kuppusami, Bernard M. Swope and Arthur Allen Carr, Welch. Alternates, John S. Cook, Welch; Ross M. Patton, Gary; and Charles F. McCord, Welch.

MERCER (7)—Delegates, David F. Bell, Jr., Bluefield; L. J. Pace and Frank J. Holroyd, Princeton; Sam Milchin, Bluefield, Virginia; and Edward M. Spencer, T. Keith Edwards and John J. Bryan, Bluefield. Alternates, John J. Mahood, Robert W. Neilson, P. R. Higginbotham and J. E. Blaydes, Jr., Bluefield; G. D. Duremdes, Princeton; and James P. Thomas, Bluefield.

MINGO (3)—Delegates, Arthur E. Levy, Williamson.

MONONGALIA (15)—Delegates, Donald Clayton Carter, Thomas S. Clark, George A. Curry, J. W. Kessel, Roger E. King, W. Gene Klingberg, Rudolf Lemperg, James W. Manier, Edward N. McIntosh, David Z. Morgan, Ralph W. Ryan, Roy James Stevens, Wade B. Stoughton, Robert H. Waldman and Roland J. Weisser, Jr., Morgantown.

OHIO (10)—Delegates, Dennis Burech, Robert S. Robbins, John W. Kennard, Jess S. Renedo, Cheryl Entress, James C. Durig, Stephen D. Ward, Harry S. Weeks, Jr., R. U. Drinkard and John P. Franz, Wheeling. Alternates, R. Alan Fawcett, David A. Kappel, Robert J. Reed III, Robert R. Weiler, Milton E. Nugent, Charles V. Porter, M. D. Reiter, Alan M. Ruben, William P. Sinclair and Alfred D. Ghaphery, Wheeling.

PARKERSBURG ACADEMY (8) — Delegate, Harry Shannon, Parkersburg.

POTOMAC VALLEY (3) — Delegates, Sadtha Surattanont and Jeffrey S. Life, Romney; and Kanai L. Das, Petersburg. Alternates, Robert R. Brown, Romney; James C. Bosley, Keyser; and Dewey F. Bensenhaver, Petersburg.

PRESTON (2)—Delegates, Thomas A. Haymond, Reedsville; and Del Roy R. Davis, Kingwood. Alternates, William H. Harriman, Jr., Terra Alta; and John W. Trenton, Kingwood.

RALEIGH (7)—Delegates, Jose L. Oyco, William D. McLean, Grover C. Hedrick, Jr., Walter E. Klingensmith, Worthy W. McKinney, Shoukry L. Francis and Michael T. Webb, Beckley. Alternates, Nancy R. Webb and John M. Daniel, Beckley.

SUMMERS (2) — Delegate, Jack D. Woodrum, Hinton.

TYGART'S VALLEY (6)—Delegates, Christopher Villaraza, Grafton; Hugh H. Cook, Jr., Elkins; Karl J. Myers, Jr., Philippi; Michael M. Stump V and Jerome C. Arnett, Jr., Elkins; and Samuel M. Santibanez, Grafton. Alternates, Donald R. Roberts, Robert R. Rector and James B. Magee, Elkins.

WESTERN (3)—Delegates, Ali H. Morad, Ripley; and Aaron D. Cottle, Spencer.

WETZEL (2)—Delegates, Allen M. Dyer, Jr., Pine Grove; and Lemoyne Coffield, New Martinsville.

WYOMING (2)—Delegates, Frank J. Zsoldos and George F. Fordham, Mullens.

Reception Committee

John J. Mahood
Worthy W. McKinney
John B. Markey
Stephen D. Ward
Harry S. Weeks, Jr.
Joseph A. Smith

Jack Leckie
Robert D. Hess
Thomas F. Scott
Frank J. Holroyd
Richard E. Flood
L. Walter Fix
Stanley J. Kandzari

Harry Shannon
Joe N. Jarrett
Herbert H. Pomerance
Joseph T. Mallamo
Robert W. Lowe
William L. Neal

M. V. Kalaycioglu
Arthur A. Abplanalp
Tony C. Majestro
Carl R. Adkins
John F. I. Zeedick
Sherman E. Hatfield
Joseph T. Skaggs

Official Program
AUXILIARY
to the
West Virginia State Medical Association
57th Annual Meeting
THE GREENBRIER
White Sulphur Springs
August 19-22, 1981

WEDNESDAY AFTERNOON
August 19

2:30-5:00—Registration, Registration Lobby.

4:00—Pre-Convention Board Meeting, Mrs. Gary G. Gilbert, President, presiding (Fillmore-Van Buren Rooms).

THURSDAY MORNING
August 20

9:00-4:00—Registration

9:30—Formal Opening of the Convention, Mrs. Gary G. Gilbert, President, presiding (Fillmore-Van Buren Rooms).

Invocation, Pledge of Loyalty, and Pledge to Flag.

Introduction of Honor Guests.

Presentation of L. Walter Fix, M.D., President, West Virginia State Medical Association.

Introduction of Convention Chairman—Mrs. M. Bruce Martin.

Roll Call of Delegates—Mrs. Charles E. Turner, Recording Secretary.

Convention Rules of Order—Mrs. M. Bruce Martin, Parliamentarian.

Report of the 1980 Convention Reading Committee—Mrs. J. L. Mangus.

Treasurer's Report—Mrs. T. Keith Edwards.

In Memoriam—Mrs. Robert W. Lowe.

Credentials and Registration—Mrs. Wilson P. Smith.

Keynote Address—Mrs. Harry S. Dvorsky, President, American Medical Association Auxiliary.

Recommendations from Pre-Convention Board Meeting—Mrs. Gary G. Gilbert.

New Business and Announcements.

Report of the 1981 Nominating Committee, First Reading—Mrs. D. Sheffer Clark.

Election of 1982 Nominating Committee.

Reports of Officers and Standing Committee Chairmen (These will not be read, but are published in the Annual Reports Book).

Presentation of Regional Directors:

Eastern Region—Mrs. Herbert E. Warden.

Northern Region—
Mrs. Charles E. Haislip.

Western Region—Mrs. Winfield C. John.

Southern Region—Mrs. John J. Bryan.

Central Region—Mrs. Charles C. Weise.

Recess.

THURSDAY AFTERNOON

2:30—First Session of the House of Delegates, West Virginia State Medical Association (Chesapeake Hall).

Address by Daniel T. Cloud, M.D., President, American Medical Association.

Recognition of AMA-ERF Grants to the West Virginia University and Marshall University Schools of Medicine.

2:30—Bridge (Trellis Lobby). Eastern Panhandle, Host Auxiliary. Mrs. Harvey D. Reisenweber, Chairman.

FRIDAY MORNING
August 21

9:00-12:00—Registration.

8:00—Past Presidents' Breakfast, Mrs. D. Sheffer Clark, Immediate Past President, presiding (Virginia Room).

9:00—Formal Opening of the 114th Annual Meeting of the West Virginia State Medical Association (Theater).

"The Thomas L. Harris Address."

L. Clark Hansbarger, M.D., Director, West Virginia Department of Health.

(Auxiliary Members are Invited to Attend.)

9:30—Second General Session—Mrs. Gary G. Gilbert, President, presiding (Fillmore-Van Buren Rooms).

Introduction of Honor Guests.

Roll Call of Delegates — Mrs. Charles E. Turner.

Address—Mrs. Charles A. Prater, President, Southern Medical Association Auxiliary.

Convention Announcements—Mrs. M. Bruce Martin.

Report of Convention Committees:

Finance—Mrs. J. Dennis Kugel.

Credentials and Registration—Mrs. Wilson P. Smith.

Presentation of AMA-ERF Awards—Mrs. John W. Kennard and Mrs. Robert S. Robbins, State Co-Chairmen, to: Robert W. Coon, M.D., Dean, Marshall University School of Medicine; and John E. Jones, M.D., Dean, West Virginia University School of Medicine.

Unfinished Business.

Report of the 1981 Nominating Committee, Second Reading—Mrs. D. Sheffer Clark.

Election of Officers.

Installation of Officers — Mrs. Harry S. Dvorsky, President, American Medical Association Auxiliary.

Presentation of President's Pin and Gavel—Mrs. Gary G. Gilbert.

Presentation of Past President's Pin—Mrs. D. Sheffer Clark.

Inaugural Address—Mrs. Logan W. Hovis.

Announcements.

Adjournment.

FRIDAY AFTERNOON

2:00—Tennis Tournament, Upper Courts. Harrison County, Host Auxiliary. Mrs. Herman Fischer, Chairman.

Golf. Kanawha County, Host Auxiliary. Mrs. Albert A. Abplanalp, Chairman.

FRIDAY EVENING

9:30—Monte Carlo Night, Chesapeake Hall. Cabell County, Host Auxiliary. Mrs. Charles E. Turner, Chairman. (Tickets may be purchased at the registration desk.)

SATURDAY MORNING

August 22

10:00—Post-Convention Board Meeting—Mrs. Logan W. Hovis, President, presiding (Fillmore-Van Buren Rooms).

SATURDAY AFTERNOON

3:00—Second and Final Session of the House of Delegates, West Virginia State Medical Association (Chesapeake Hall).

Presidential Address: L. Walter Fix, M.D.

Installation of John B. Markey, M.D., Charleston, as 1981-82 President of the West Virginia State Medical Association. (Auxiliary Members are Invited to Attend.)

SATURDAY EVENING

6:30-7:30—Cocktail Party and Reception Honoring the Officers of the West Virginia State Medical Association and its Auxiliary (Colonial Hall Terrace).

SCIENTIFIC EXHIBITS

AMERICAN DIABETES ASSOCIATION, WEST VIRGINIA AFFILIATE

"DIABETES."

Douglas L. Jones, M. D., Board Member, and Herbert H. Pomerance, M D., Board Member.

DIVISION OF CARDIOVASCULAR AND THORACIC SURGERY, DEPARTMENT OF SURGERY, MARSHALL UNIVERSITY SCHOOL OF MEDICINE

"PERCUTANEOUS INSERTION OF BALLOON TIPPED FLOW DIRECTED THERMODILUTION CATHETER: A PRESENTATION OF TWO TECHNIQUES." This exhibit is a video tape presentation of two techniques and a poster board presentation.

Lorraine J. Rubis, M. D., Associate Professor of Surgery, Division of Cardiovascular and Thoracic Surgery; John Dae Harrah, M. D., Professor of Surgery and Chief, Division of Cardiovascular and Thoracic Surgery; and Ned Evans, Chief Perfusionist, St. Mary's Hospital, Huntington.

DIVISION OF CARDIOVASCULAR AND THORACIC SURGERY, DEPARTMENT OF SURGERY, MARSHALL UNIVERSITY SCHOOL OF MEDICINE

"A NEW LEASE ON LIFE, CARDIAC REVASCULARIZATION." This exhibit is a video tape presentation of cardiac catheterization and coronary revascularization.

John Dae Harrah, M. D., Professor of Surgery and Chief. Division of Cardiovascular and Thoracic Surgery; Lorraine J. Rubis, M. D., Associate Professor of Surgery, Division of Cardiovascular and Thoracic Surgery; and Ned Evans, Chief Perfusionist, St. Mary's Hospital, Huntington.

THE MYERS CLINIC — BROADDUS HOSPITAL

"THE USE OF A STAPLER IN GENERAL SURGERY" This exhibit presents the stapler as an operative instrument for surgery in a small community hospital. The presentation is made with color slides of case presentations using the stapler as an operative modality.

A. F. Gimenez, M. D., Surgeon, and J. Richard Crawford, Director of Photography.

NATIONWIDE INSURANCE—MEDICARE

"MEDICARE." Nationwide invites you to stop by and discuss your Medicare questions with our district managers. Educational material is available to assist your office in filing Medicare claims.

Preston A. Jolley, Field Operations Manager; James A. Cuppy, Field Services Manager; Betty Rickenbacker, District Medicare Manager, and Don F. Harper, District Medicare Manager.

NAVY RECRUITING DISTRICT, LOUISVILLE, KENTUCKY

"UNITED STATES NAVY." Information concerning the professional opportunities for physicians in the United States Navy Medical Corps. Each physician is encouraged to view our materials and explore the alternatives to business-oriented practices. (Information on medical school scholarships and NROTC scholarships also will be available.)

Freda Warren, Lieutenant Commander, Nurse Corps; Vic Bautista, Chief Hospital Corpsman, and Ken Devore, First Class Hospital Corpsman.

SHAWNEE HILLS COMMUNITY MENTAL HEALTH/MENTAL RETARDATION CENTER, INC.

"IMPACT OF ALCOHOLISM: A TREATMENT ALTERNATIVE." This exhibit will examine the epidemiology of alcoholism. The influence of alcohol abuse on general health care and as it influences the practice of medicine by each specialty group also will be discussed. Treatment aspects will be emphasized including a delineation of the new, comprehensive detoxification and residential treatment facility at the Shawnee Hills Treatment Center in Charleston, a statewide referral facility.

Imelda Deegan Stevenson, R.N., Nurse Consultant, and John Patrick Hutton, M.D., Clinic Director.

SOUTHERN MEDICAL ASSOCIATION

"SOUTHERN MEDICAL ASSOCIATION." Information concerning various SMA continuing medical education programs, including the Dial Access System, SMA Telecourse System, *Southern Medical Journal* and the Annual Scientific Assembly. Also on display will be SMA membership applications and information on the benefits of being an SMA member.

Robert Mosca, Director of Member Services; William J. Ranieri, Executive Vice President; Jeannette Stone, Program Development Coordinator, and Ann Crouch, Comptroller.

UNITED STATES ARMY MEDICAL DEPARTMENT

"U. S. ARMY MEDICAL DEPARTMENT." Recruitment of physicians.

Cpt. John Kitsopoulds, AMEDD Personnel Counselor.

WEST VIRGINIA DEPARTMENT OF HEALTH, OFFICE OF COMMUNITY HEALTH SERVICES

"A COMMUNITY RESPONSIVE APPROACH: THE HEALTH PROFESSIONAL CLEARINGHOUSE." This exhibit will feature the newly-established health professional recruitment program for medically-underserved areas of the state. Two other initiatives for facilitating community health care also will be presented: Services integration of primary care, behavioral health and public health; and behavioral health continuing education for primary providers.

Robert Van Hook, Director, Primary Care; Robert Whitler, Coordinator, Health Professional Recruitment, and Judith Greenwood, Ph.D., Director, Human Resources Development Program, State Department of Health.

WEST VIRGINIA DEPARTMENT OF HEALTH, OFFICE OF COMMUNITY HEALTH SERVICES, STATE HEMOPHILIA PROGRAM

"WEST VIRGINIA STATE HEMOPHILIA PROGRAM." The recently-enacted Senate Bill No. 475, introduced by Senators Jae Spears (D-Randolph) and Robert Wise (D-Kanawha), provides for the establishment and maintenance of a program providing treatment and assistance to all persons suffering from a genetically-determined coagulation factor deficiency. The exhibit will display the present known location of persons with different types of clotting disorders and their financial resources.

The benefits of home transfusion and its monitoring by periodic review at a comprehensive care clinic will be illustrated. The purpose is to add to the roster of known hemophiliacs and to popularize the regimens of home transfusion.

Ms. Cathy Gates, Office of Community Health Services, Department of Health; Mabel M. Stevenson, M. D., Medical Director, Tri-State Red Cross Blood Service, Huntington; and Lee Harbert.

WEST VIRGINIA HEALTH SYSTEMS AGENCY

"HEALTH PLANNING: HAS IT A FUTURE?"

Isaiah A. Wiles, M. D, Volunteer Adviser

WEST VIRGINIA MEDICAL INSTITUTE, INC.

"ANNUAL DATA REPORT." The West Virginia Medical Institute will display 1980 West Virginia statistics, profiles and impact data. Included in the display will be information from two 1981 West Virginia area-wide audits: Blood Utilization Study (61 hospitals); and IPPB Study (59 hospitals). Information concerning objectives set by the Board of Trustees for fiscal year April, 1981, through March, 1982, for Institute activities in all West Virginia hospitals also will be available. Inquiries will be welcomed.

Harry S. Weeks, Jr., M. D., President; and Betty C. Kirkwood, Executive Director.

WEST VIRGINIA CHAPTER, AMERICAN PHYSICAL THERAPY ASSOCIATION

"PHYSICAL THERAPY: CHANGING CONCEPTS OF CARE." The display is designed to depict the current trend of physical therapy practice-clinical specialization. This concept is developing rapidly in the areas of sports medicine, orthopedics, pediatrics and cardiac rehabilitation. The emphasis of the display is to inform physicians of the changing roles and responsibilities of the physical therapy practitioner.

Carolyn E. Barnes, Associate Professor, Division of Physical Therapy, West Virginia University Medical Center; Tony Minard, Director, Rehabilitation Services, Camden-Clark Memorial Hospital, Parkersburg, and President, West Virginia Chapter, American Physical Therapy Association; and John J. Petronis, Associate Professor, Division of Physical Therapy, WVU Medical Center.

WEST VIRGINIA SAFETY COUNCIL; WEST VIRGINIA CHAPTER, AMERICAN ACADEMY OF PEDIATRICS; WEST VIRGINIA STATE MEDICAL ASSOCIATION

"CHILD RESTRAINTS." This exhibit will attempt to dramatize the need for automobile seat restraints for all children up to age five years, as mandated by state legislation which was effective July 9, 1981.

Flavius H. Brown III, Administrator, Child Restraint Program, and Herbert H. Pomerance, M. D., Chairman, West Virginia Chapter, AAP.

WEST VIRGINIA THORACIC SOCIETY/ AMERICAN LUNG ASSOCIATION OF WEST VIRGINIA

"PULMONARY DISEASE LEARNING RESOURCE SERIES." A series of self-instructional audiovisual programs for medical education. The program topics include "Interpretation of Blood Gases," "Coal Workers' Pneumoconiosis," "Pathophysiology of Pulmonary Edema," "Basic Concepts in Immunology," "Defense Mechanisms of the Lung," "Introduction to Hypersensitivity Reaction in the Lung," and many others. All qualify for Category 1 credits.

John C. Heavener, Jr., Executive Director, ALAWV, and John R. Carlson, Assistant Executive Director, ALAWV.

DEPARTMENTS OF UROLOGY & RADIOLOGY, WEST VIRGINIA UNIVERSITY MEDICAL SCHOOL

"TREATMENT OF LOCALIZED CARCINOMA OF THE PROSTATE UTILIZING A NEW IODINE-125 SEED INJECTOR." This exhibit demonstrates the surgical treatment of 80 patients with localized carcinoma of the prostate utilizing a new Iodine-125 seed injector. A simulation of the operative procedure has been devised to demonstrate the application of the injector. Clinical results and complications are listed.

Stanley J. Kandzari, M.D., Professor, and Jin-Chul Kim, Associate Professor.

WEST VIRGINIA DIVISION OF VOCATIONAL REHABILITATION

"VOCATIONAL REHABILITATION," Our booth will include pictures and brochures describing the services provided clients participating in the vocational rehabilitation program.

Earl W. Wolfe, Director.

WEST VIRGINIA WORKMEN'S COMPENSATION FUND

This display emphasizes the involvement of the medical community in almost every aspect of a Workmen's Compensation claim. The Fund is heavily dependent on the medical vendors throughout the state; therefore, it is essential that the lines of communication remain open and clear.

Gretchen O. Lewis, Commissioner.

ANNUAL REPORTS

Insurance Committee

Over 37 years ago, the West Virginia State Medical Association Group Insurance Program was established as a benefit of membership in our Association. As one of the first programs for professional associations in the country, it has provided needed benefits for hundreds of our members since its inception.

The success of our Group Program is the result of several factors:

(1) High participation by members throughout the State

(2) A continual up-grading of plans designed for our needs

(3) Local service—virtually all claims are handled by our administrator

(4) An "on-call" representative is available for consultation coordination of coverage, and to assist when necessary in the filing of claims

(5) The addition of new plans which will meet the needs of our members.

Our Group Insurance Program will continue to remain sound by the active participation in the plans by our members; the on-going professional quality of coverage; and the excellent service of our program administrator.

Since the initial plan was put in force many years ago, seven additional plans have been designed to meet the important needs of our members at low group rates. Following is a brief description of each plan comprising the West Virginia State Medical Association Program of Group Insurance. We suggest that each member review the various coverages available in relation to his or her current needs.

1. *Long-Term Disability Income Protection*—Pays up to $500 a *week*. There are three plans to choose from and you can individualize these plans with a wide variety of self-insured waiting periods.
2. *Office Overhead Expense*—If you are unable to work due to a disabling accident or illness, this plan offers up to $5,000 a month to pay the regular operating costs including rent, utilities, depreciation, employees' salaries and other normal fixed overhead costs. An important feature of this plan is that your premiums are tax deductible.
3. *Family Major Hospital Insurance*—Serious illness or a severe accident often means weeks, even months, of hospitalization and can be financially disastrous. The Family Major Medical Hospital plan is designed to help cover these major hospital expenses up to $30,000.
4. *Hospital Money Plan*—This plan offers a schedule of benefits up to $100 a day for each day of hospitalization for a member and spouse. Dependent children may be insured up to $50 a day. This plan is designed to bridge the gap between expenses incurred and actual benefits provided under one's regular hospital policy.
5. *Term Life Insurance*—This plan offers up to $100,000 in units of $10,000 for members. There is an optional coverage available for spouse and children in lesser amounts.
6. *Accidental Death and Dismemberment*—You can purchase up to $100,000 of Accidental Death and Dismemberment insurance, and your coverage is effective 24 hours a day, 365 days a year, at home or away, on or off the job and anywhere in the world. You are fully protected as a passenger for regular airline travel.
7. *Coordinated Investment Service*—Specifically designed for HR-10, this plan offers mutual funds, fixed or variable annuities, and split funds.
8. *Group Professional Liability Insurance*—The Professional Malpractice Plan recently was changed, and a separate report follows:

PROFESSIONAL LIABILITY PROGRAM

During the past year, CNA Insurance received the endorsement of the Medical Association for a new statewide Professional Liability Insurance Program. This decision was based on a desire to assure essential program elements not felt to be present in the previous program. The key elements of the new program are five-year market guarantee, consent to settle provision, competitive rates with profit sharing, and optional payment plans without any finance charge.

McDonough Caperton Shepherd Association Group in Charleston has been designated as the Managing General Agent for the administration of the program. It is felt that this will provide

on-going expertise to the Medical Association to evaluate all aspects of the program. In addition, the Managing General Agent will work closely with the Medical Association and CNA to provide important loss control measures to help the program succeed.

It is hoped that every West Virginia physician will support this important program and work for its continued success.

In summary, the West Virginia State Medical Association Group Insurance Program has enabled our members to select from a variety of well-designed plans. With the professional administration of the plans and the support of the membership, our group insurance program will continue to respond to the insurance needs of members in our organization and remain a viable membership benefit.

Respectfully submitted,
Lyle D. Vincent, M. D.,
Chairman
William R. Barton
James L. Bryant
John T. Chambers
David V. Cole
R. U. Drinkard
H. Summers Harrison
James A. Heckman
C. A. Hoffman
Edward Jackson
James W. Lane
Kenneth G. MacDonald, Sr.
A. Thomas McCoy
Buford W. McNeer
C. Vincent Townsend
John F. I. Zeedick

Committee On Cancer

The Committee on Cancer met during the January Mid-Winter Clinical Conference in Charleston. The members reviewed the present status of cancer control in West Virginia, and problems which were seen to be ahead. Another meeting of the Committee was planned during the annual convention of the West Virginia State Medical Association in August, and suggestions for discussion topics were invited from the members of the Association.

The major problems in 1980-1981 have been: (1) growing support in the legislature for legalization in West Virginia of Laetrile usage with legislation to permit this passed and signed into law by Governor Rockefeller in April, 1981; and (2) the continued attrition in hospital cancer programs following discontinuance of the State Cancer Control Program by the previous State Health Director.

Three major hospitals in West Virginia have lost accreditation by the American College of Surgeons of their cancer programs in the past three years. Two of these losses occurred in the past year. While individual physicians concerned about the cancer program have protested and worked diligently to maintain quality in the cancer programs, the majority of physicians and hospital administrators have other concerns which receive higher priorities for their time and hospital funds. The inevitable result is poorer continuing education of physicians regarding cancer, diminuation in the discussion of ongoing problems in cancer patient management and loss of patients to follow-up. This exposes the patients to increased risk of death from cancer and makes it impossible for hospital staffs to evaluate the quality of their treatment of cancer.

Fortunately, two signs of encouragement can be seen: (1) Dr. L. Clark Hansbarger, who became State Health Director in February of 1981, has indicated an interest in considering reactivation of the State Cancer Control Program and the State Cancer Registry (correspondence with Doctor Hansbarger is under way, and efforts should be made to follow up on this by physicians concerned about cancer); and (2) the State Cancer Plan has been drafted by the Cancer Task Force of the State Health Coordinating Council.

This cancer plan defines the characteristics of hospitals and physicians that should be responsible for definitive treatment of cancer in West Virginia to insure that the highest quality of treatment can be made available considering the unique geographical constraints posed by this mountainous state.

The guidelines for cancer prevention, detection, treatment and follow-up largely are derived from professional advice given by the American College of Surgeons' Commission on Cancer, the American Cancer Society and members of the West Virginia State Medical Association. The draft of the cancer plan will be considered at public hearings throughout the state during 1981-1982, and members of the Association are urged to communicate their thoughts about it to the Committee on Cancer when they receive a copy for review.

Respectfully submitted,
George J. Hill II, *Chairman*

May 4, 1981

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WVU Medical Center –News–

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

THC Trials For Chemotherapy Nausea, Vomiting Lag

There has been no great rush among patients on cancer chemotherapy to enroll in the clinical trials of delta-nine-tetrahydrocannabinol (THC) since the drug became available at WVU Medical Center in late May.

Peter C. Raich, M. D., Professor of Medicine and Chief of the Section on Hematology/Oncology, said that from five to 10 patients continue to express interest in taking THC, the active ingredient in marijuana. THC is being tested for its effectiveness in controlling nausea and vomiting, common side-effects of some drugs used in cancer chemotherapy.

"Interest has waned because of the long interval between announcement of the availability of the drug and its arrival here," Doctor Raich said. "If the treatment is successful in our first patient, however, word of mouth will increase interest among others."

From 50-100 patients are expected to be involved in the trials during the first year, Doctor Raich said.

Patients are admitted to the THC program, funded by the National Cancer Institute, only after conventional therapy for nausea and vomiting has failed. Enrollment is voluntary.

Initial Dosage

The initial dosage planned for participants at the WVU Medical Center is two capsules of five milligrams each following chemotherapy and every four to six hours thereafter.

This dosage may be increased or decreased depending on need, Doctor Raich said. The drug is usually given only on the day chemotherapy is administered, but is available for the day following if required.

Not only is patient interest less than expected, but private physicians who may prescribe THC for their patients under certain NCI guidelines have not hurried to have their applications approved, Doctor Raich observed.

The applications must be approved both by the Qualification Review Board and the NCI.

The board, headed by Doctor Raich, was set up by the State Department of Health following the passage of 1979 legislation permitting use of marijuana in West Virginia for treatment of glaucoma and the side-effects of cancer chemotherapy.

Private physicians wishing to prescribe THC for patients must be experienced in drug therapy of cancer, although not necessarily specialists in oncology. Each must have a registered number for the drug and be officially registered with a participating pharmacy. Each must affirm that the patient has signed the consent form and that the drug will be prescribed only for treatment of cancer chemotherapy-associated reactions. Each must also report any adverse THC reactions to the board and the NCI.

Doctor Traubert Re-elected Chief Of Staff

Dr. John W. Traubert, Professor and Chairman of the Department of Family Practice in the West Virginia University School of Medicine, has been re-elected Chief of the Medical and Dental Staff at University Hospital.

A member of the medical faculty since 1973, Doctor Traubert is a 1956 graduate of WVU. He received his master of science and M. D. degree at Ohio State University, and formerly practiced in Wellsburg.

Named Assistant Chief of Staff at the hospital's annual election meeting was Dr. Richard B. Knapp, Professor and Chairman of Anesthesiology. He succeeds Dr. Ellen E. Hrabovsky, Associate Professor of Surgery and Pediatrics.

The medical and dental staff re-elected Dr. Ronica M. Kluge, Associate Professor of Medicine, as Secretary.

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Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other nonsteroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin;* use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. *Aspirin:* used concomitantly may decrease *Motrin* blood levels.
Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship*

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown*

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under *"Probable Causal Relationship" (PCR)* if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under *"Causal Relationship Unknown"* if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

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Third-Party News, Views and Program Concerns

Supreme Court Agrees To Hear AMA Appeal In FTC Case

The U. S. Supreme Court agreed to review the American Medical Association case challenging the jurisdiction of the Federal Trade Commission over not-for-profit professional associations and their ethical pronouncements on advertising and contract practice. The justices will hear the case this fall, according to the AMA.

The case centers on the FTC order issued in October, 1979, which the AMA has appealed to the commission and the U.S. Court of Appeals. The Court of Appeals upheld the FTC order in a two-to-one decision. The order prohibits the AMA from involving itself in advertising by physicians unless the advertising "would be false or deceptive" under the Federal Trade Commission Act, and from involving itself in the consideration provided to physicians for their services.

In its petition to the Supreme Court, the AMA said the case raises questions about the FTC's authority to condemn and pre-empt responsible efforts at self-regulation by the professions. The AMA cited a 1977 Supreme Court statement — in a case involving lawyer advertising—that professional associations should play a "special role" in "defining the boundary" between deceptive and nondeceptive advertising. The order cuts off professional associations' First Amendment rights to "breathing space" in which to promulgate reasonable standards of ethics, the AMA said.

Joining in the petition to the high court were the Connecticut State Medical Society and the New Haven County Medical Association, both of which were named in the FTC's original complaint. The American Dental Association filed an amicus curiae petition with the Supreme Court in support of the medical organizations.

Health Planning Law Gets Setback By Ruling

The health planning law got a setback when the U.S. Supreme Court ruled that the law does not provide antitrust immunity that would permit insurers to refuse to enter into participating contracts with hospitals that bypass the planning program. By a unanimous vote, the justices reversed a Federal Appeals Court ruling that had found Blue Cross could refuse to reimburse subscribers for care in the National Gerimedical Hospital and Gerontology Center, Kansas City, Missouri, because construction was not approved by the Missouri planning agency.

The agency — Mid-America — said in 1976 that the hospital's construction was not needed because the area had sufficient hospital beds. The advisory nature of the planning agency's decision was stressed in the Supreme Court opinion. "Nothing in (the law) requires Blue Cross to take an action, that, in essence, sought to enforce the advisory decision" of the planning agency, Justice Lewis Powell wrote for the court.

Blue Cross-Blue Shield's McNerney Resigns

Blue Cross and Blue Shield Associations President Walter J. McNerney has announced his resignation. McNerney, who asked the national associations' boards of directors to appoint a search committee, said he would remain active in his position until at least the annual meeting of member plans in late November to assure an orderly transfer to his successor.

McNerney, 56, did not indicate his plans for the future, but said he was considering several alternatives with a view toward meeting new challenges in the health care field. He served as President of Blue Cross for 16 years and was named President and Chief Operating Officer for the associations when they consolidated in 1978.

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County Societies

CENTRAL WEST VIRGINIA

The Central West Virginia Medical Society met on May 27 at the Deerfield Country Club in Weston.

Among a number of items of old and new business completed, the Society voted to send two persons to Camp Kno Koma this year at a cost of $230.—Joseph B. Reed, M. D., Secretary-Treasurer.

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Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially, and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications: Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings: Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions: Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are excreted, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions: Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS.) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia, and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure: Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
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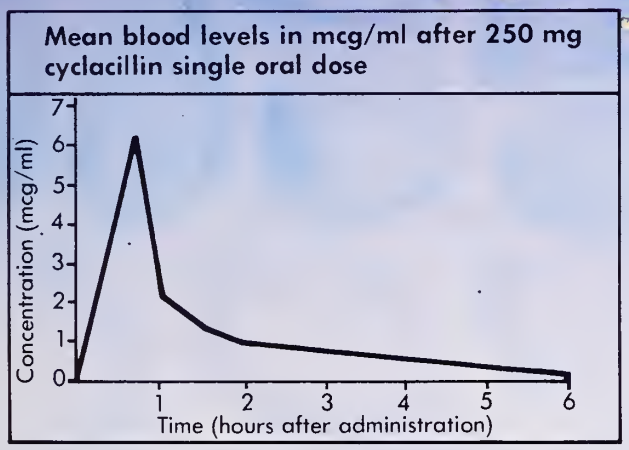

- Rapid, virtually complete absorption from GI tract
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- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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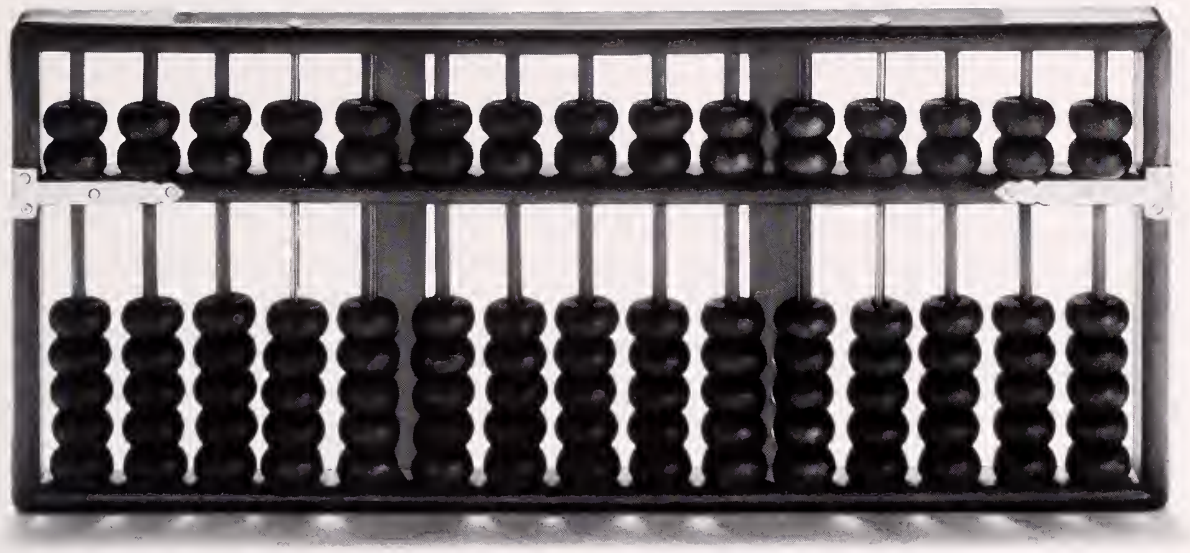

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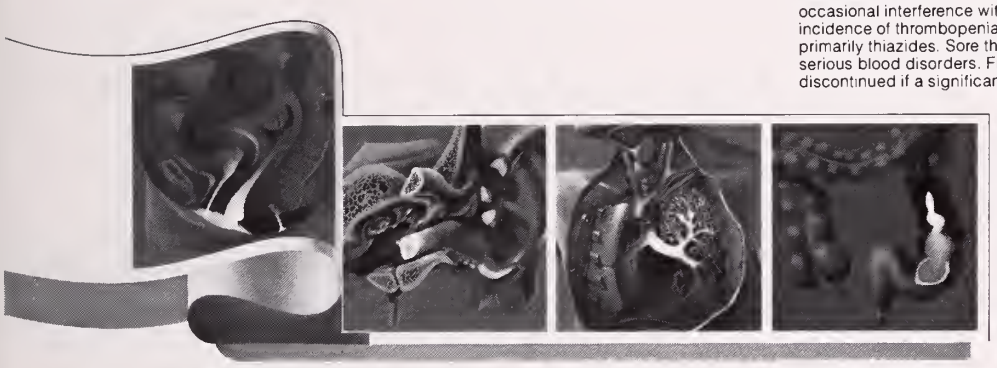
Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



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faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae*. To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets*, each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets*, each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension*, containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. **2.** Data on file, Medical Department, Hoffmann-La Roche Inc.

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Please see previous page for summary of product information.

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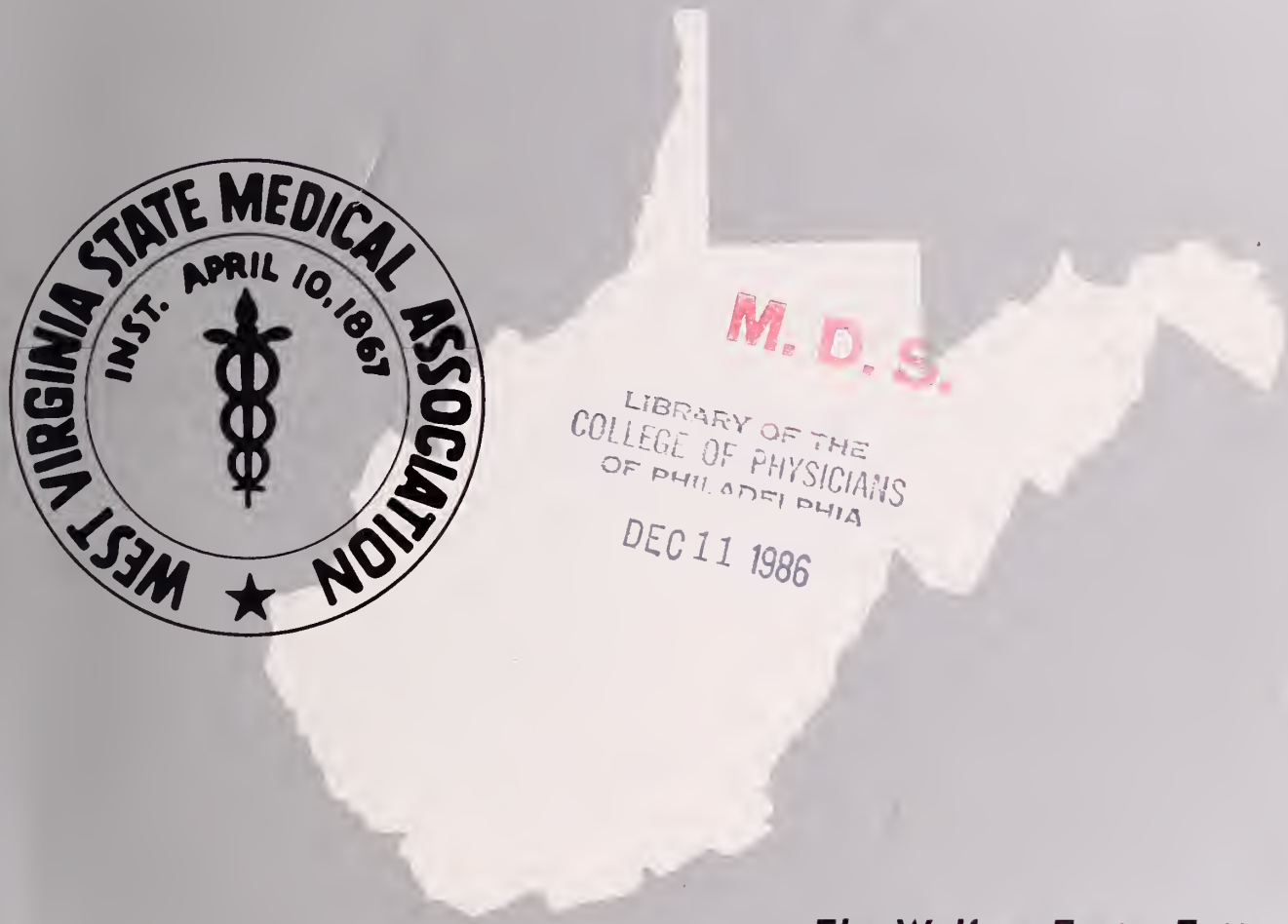

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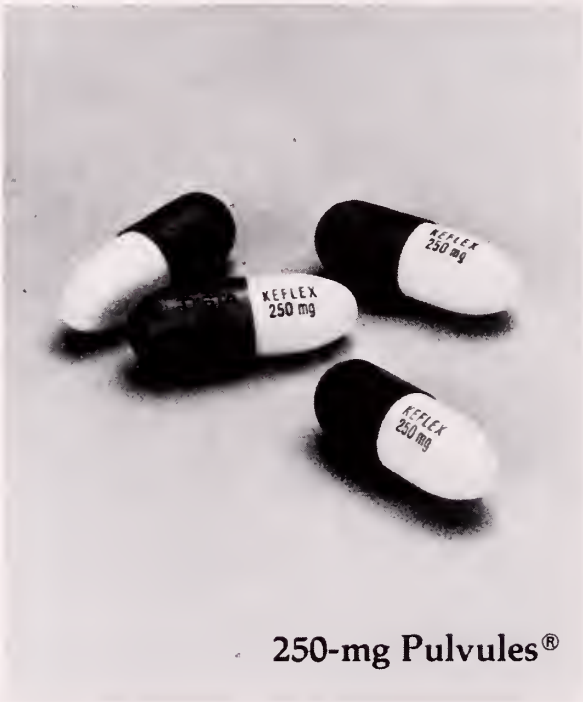

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Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

*__INDICATIONS__: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria. Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow, CNS stimulants, e g , caffeine, Metrazol, or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued. Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

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Philadelphia, PA 19101

for mild to moderate pain

Wygesic®IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain.
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen.
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE. Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol, or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**).
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine.
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks, e.g. driving a car or operating machinery. Patients should be cautioned accordingly.
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY. Therefore, propoxyphene should not be used in pregnant women unless, in the judgement of the physician, the potential benefits outweigh the possible hazards.
USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group.
PRECAUTIONS: Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation, nausea and vomiting. These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down. Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness, headache, weakness, euphoria, dysphoria, and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported.
DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics, and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**). Confusion, anxiety, and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine.
MANAGEMENT OF OVERDOSAGE: SYMPTOMS. The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse. In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone, there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea, cardiac arrest, and death have occurred.
Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours. However, early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity, jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow. Renal failure due to tubular necrosis, and myocardiopathy, have also been reported.
Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal.
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists naloxone, nalorphine, and levallorphan, are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I.V., simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist, the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs (e.g. caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions.
Oxygen, IV fluids, vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed, and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage, administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours). N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting, and drowsiness. Appropriate literature should be consulted for further information. (JAMA 237:2406-2407, 1977).
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended.

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Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam Roche) ®, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® (IV)
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

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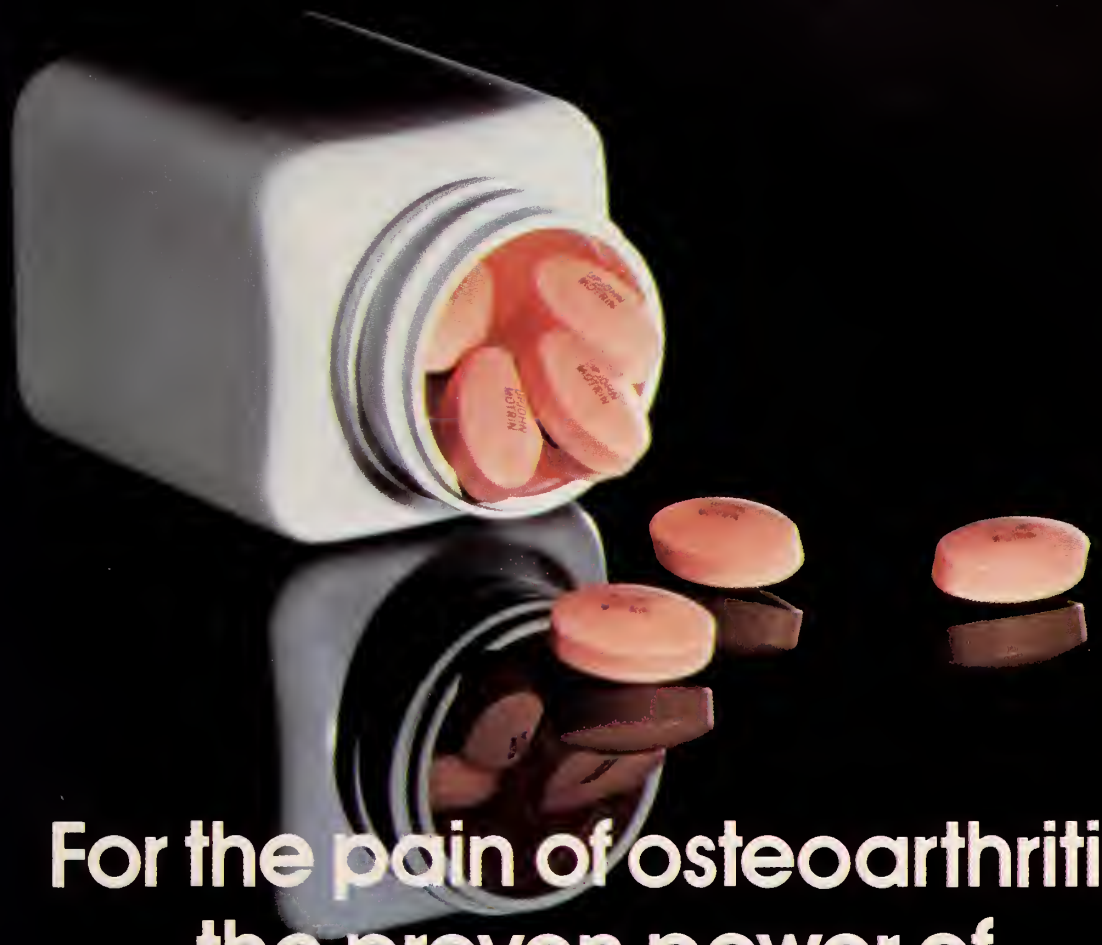

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Motrin®

ibuprofen, Upjohn

600 mg Tablets

One tablet t.i.d.

Please see the following page for a brief summary of prescribing information.

Upjohn

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Motrin® Tablets (ibuprofen, Upjohn)

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other nonsteroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin;* use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. *Aspirin:* used concomitantly may decrease *Motrin* blood levels.
Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship*

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown*

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under *"Probable Causal Relationship" (PCR)* if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under *"Causal Relationship Unknown"* if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

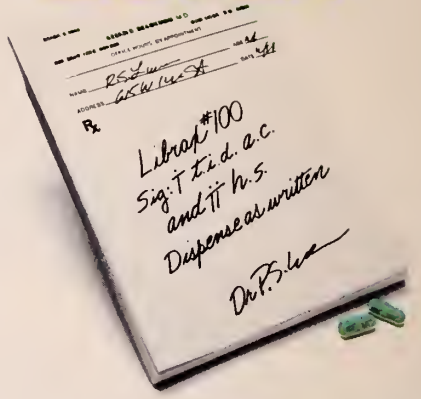
Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

MED B-5-S

J-9042-4

July 1981

Specify Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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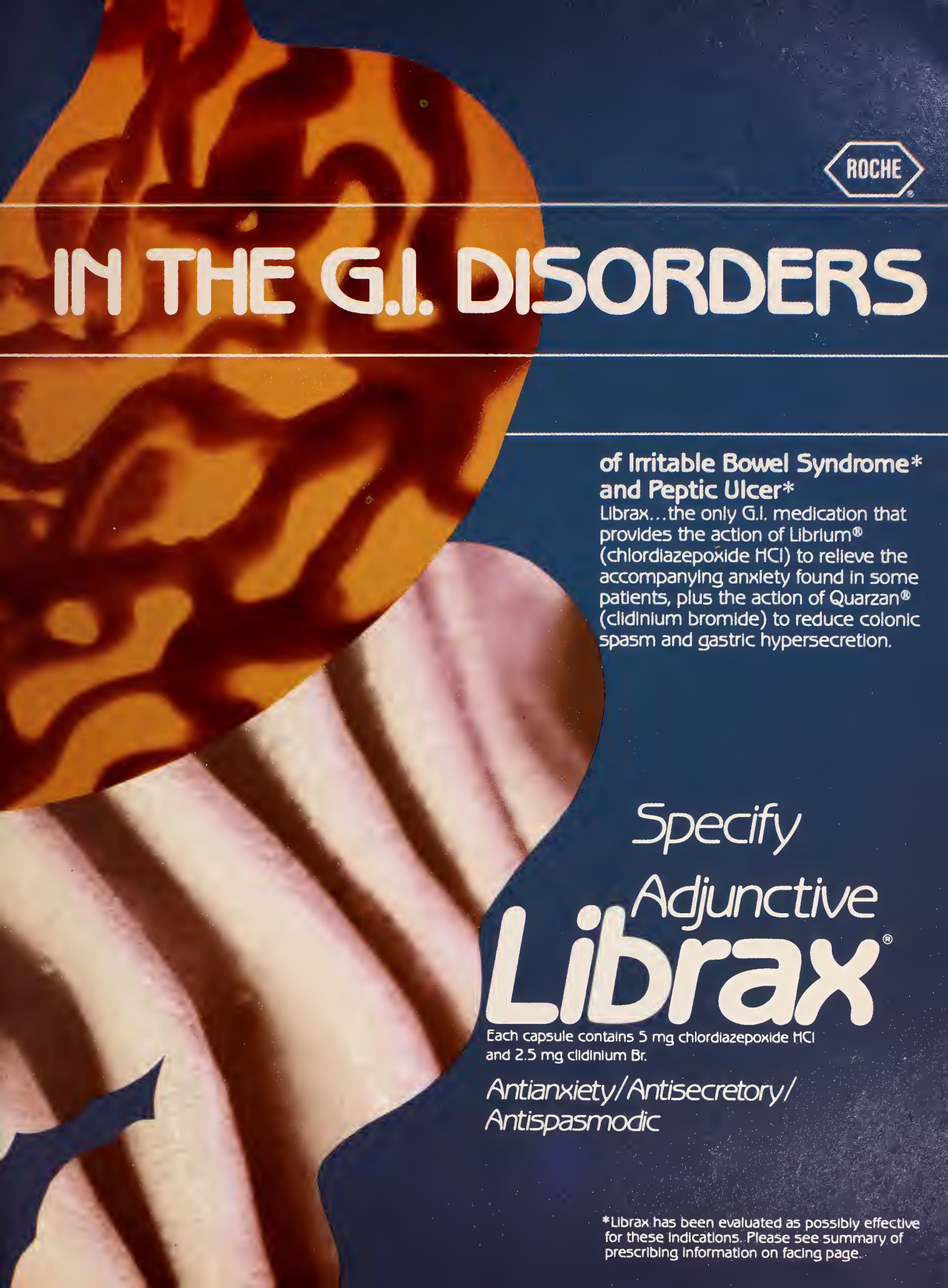
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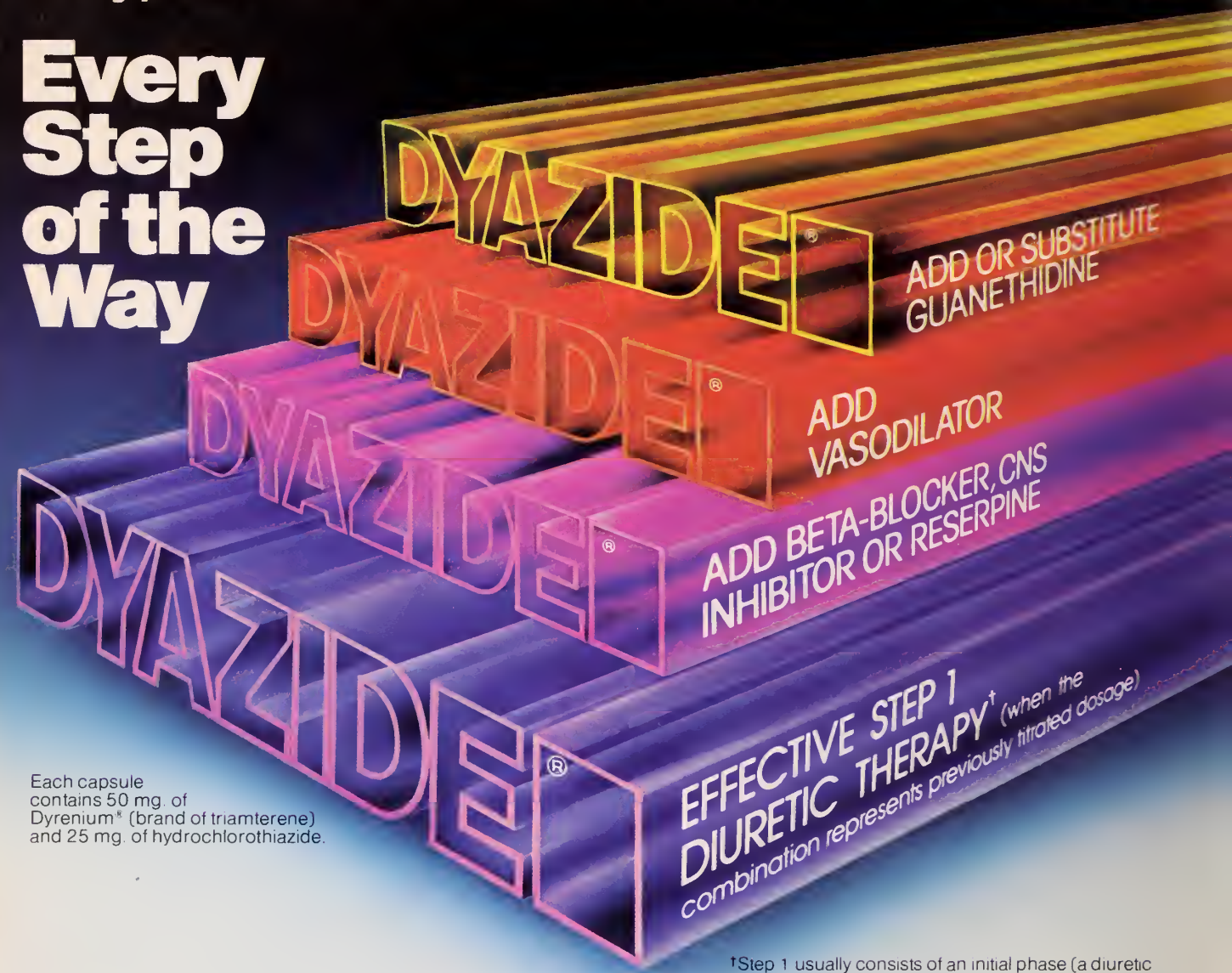

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

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Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. The following is a brief summary.

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Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently, both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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Circumcision: A New Look At An Old Controversy

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The results of a survey of parents regarding circumcision are presented. The purpose of the survey was to facilitate counseling of parents. A brief summary of the literature is presented regarding complications and potential benefits of circumcision.

No other medical procedure has been the subject of so much controversy as circumcision. Having been carried out for thousands of years by the Hebrews since the time of Abraham, circumcision is the oldest surgical procedure known to man. There is further evidence that circumcision was practiced as early as 2300 B.C. by the Egyptians.[1]

Even though the American Academy of Pediatrics has recommended that circumcision not be done on a routine basis,[2] 60 to 90 per cent of newborns in the United States are still being circumcised. The reason for circumcisions may be religious, medical or aesthetic.

Several surveys have been carried out to determine why parents request or demand circumcision. Patel,[3] in Canada, found the most common reasons related to hygiene or to the knowledge of some unfortunate person who supposedly should have been circumcised but was not. Similar results have been obtained in a study by Shaw[4] in Ohio. A portion of Shaw's study involved medical specialists. It was found that circumcision was favored by 18 of 31 peditricians, 33 of 40 obstetricians and 24 of 35 urologists. Other potential indications for circumcision have been related to cancer of the penis or cervix. In times past, the foreskin was thought to be a disadvantage to those involved in desert warfare or in the tropics where balanitis is common.

In this report, a survey of 50 consecutive mothers of male infants in central West Virginia was carried out to determine local attitudes toward circumcision. The results of this study are being used to help counsel parents intelligently regarding circumcision. In spite of the amount of material written on the pros and cons of circumcision, many parents and physicians may base their opinions on hearsay or antiquated information. More recent information continually causes us to reevaluate our positions on this issue.

Methods

Fifty consecutive mothers of male infants were given a questionnaire by the pediatrician or obstetrical nurse and asked to complete it before discussing the subject with their physician. The parents were all Caucasian and non-Jewish, generally reflecting the population served. They were from a predominantly rural home environment.

TABLE

	Number of Responses	*Per cent*
Because the child's father or brother is circumcised	13	12.5%
Because there is less chance of infection if circumcision is done	31	29.8%
Because it is easier to clean the penis	17	16.4%
Because it is better for women if their husbands are circumcised	4	3.9%
Because other medical problems may develop in the child	16	15.4%
Because it most likely will have to be done in the future	21	20.2%
Because a friend or relative who was not circumcised had problems	2	1.9%

Results

Forty-five of 50 mothers requested that circumcision be done. There were 104 responses. The results are shown in the Table.

Discussion

In a review of the literature on neonatal circumcision, we find many opinions, isolated case reports and anecdotal experiences, but few reports with a firm scientific basis. Most articles oppose neonatal circumcision as a routine procedure. Included in these is a statement by the American Academy of Pediatrics in 1975.[2] The most convincing argument for discontinuation of routine neonatal circumcision would be that it is a potentially hazardous procedure without significant benefit. This is the same argument which recently resulted in discontinuation of routine immunizations for smallpox, a decision which previously would have been considered radical indeed.

Is circumcision a hazardous procedure? The risk of death from modern techniques of circumcision was estimated at two per one million procedures in New York City during the period 1939 to 1951,[1] during which time approximately 600,000 circumcisions were performed. The one death in this series was from hemorrhage in a home circumcision by a non-certified Mohel, one who performs Jewish ritual circumcisions. Annuniato[5] has reported three cases of Staphylococcal scalded skin syndrome attributed to circumcision, one of which was fatal.

In a 10-year review of 5,521 circumcisions in a United States hospital, Gee[6] found 14 significant complications apart from minor bleeding or localized infection. These included one life-threatening hemorrhage in a child with Factor VIII deficiency, four systemic infections, eight circumcisions of infants with unrecognized hypospadia, and one with complete denudation of the penile shaft requiring skin grafting. The most serious complication was complete slough of the penis when electrocautery was used in conjunction with the metallic Gomco device. In this case, it was necessary to change the infant's sex to female. No fatalities were reported in Gee's series. Loss of the penis from the use of a rubber band as a tourniquet also has been reported.[7]

The Plastibell method has been found to be associated with a somewhat higher incidence of infection than that with use of the Gomco device. The Plastibell method also has the potential for vascular compromise and gangrene.[6] Byars[8] has described loss of penile skin requiring grafting and also the formation of urethral fistulas. Two cases of near fatal sepsis have been described by Kirkpatrick.[9]

One of the most common complications is meatal stenosis which often is overlooked because it is a relatively late complication. The mechanism is thought to be recurrent ulceration of the glans after being denuded of its protective covering. Pastel[3] studied 349 circumcised infants, 100 of whom were available for long-term followup. Thirty-one of the 100 had meatal ulcerations at some time. Of these, eight had significant meatal stenosis with a pin-hole opening. Berry[10] has studied meatal caliber and found a definite narrowing in adults who were circumcised in the neonatal period. Many complications may be due to poor technique, but meatal stenosis may complicate any circumcision by the very nature of the procedure.

Hygiene Frequent Reason

In our survey the most frequent reasons offered for circumcision related to hygiene, infection and the belief that circumcision most likely would be required later in life if not done in the neonatal period.

It certainly is easier to maintain penile hygiene in the circumcised child who has one less area for accumulation of dirt and secretions. In many patients whose general hygiene is poor, experience has made every physician pessimistic of even the most thorough instructions. On the other hand, these may be the very children who, during infancy, may benefit most from the protection the foreskin offers the glans to prevent meatal stenosis secondary to diaper rash. In the first year of life, most foreskins will be non-retractable. The normal "adhesions," which actually are the physiologic fusion of the common epithelia of the prepuce and glans, in fact will prevent accumulation of dirt and bacteria which might lead to infection, ulcerations and meatal stenosis.

Gairdner[11] has studied boys age five to 13 and found 94 per cent of the foreskins to be retractable. At birth, four per cent were retractable; at six months of age, 15 per cent; at one year, 50 per cent; and at three years, 90 per cent. The diagnosis of phimosis obviously is rarely justified at birth. True phimosis implies, in addition to a nonretractable foreskin, a small preputial opening and ballooning on micturition.

Does circumcision prevent cancer of the penis? At the Veterans Administration Hospital at Hines, Illinois, from 1931-1944, Lenowitz[12] reported 13,490 Caucasian and 982 black patients treated for all forms of cancer. Cancer of the

penis comprised 0.96 per cent of these cases in the Caucasian patients and 3.97 per cent of the cases in black patients. There were 139 cases of cancer of the penis, eight of which had been circumcised. None of the eight was circumcised in the neonatal period.

The risk of cancer of the penis in the uncircumcised male previously may have been underestimated. Earlier studies have not determined the actual risk to the uncircumcised patient since the population base usually has been considered the total of both circumcised and uncircumcised men. Kochen[13] recently studied the incidence of cancer of the penis based on the third national cancer survey. The cumulative life-time risk in the uncircumcised population was one in 600 with a median age of occurrence of 67 years. To arrive at this figure, two assumptions were made: Cancer of the penis was considered to be a condition exclusively of uncircumcised men, and disregarded was the overall decline in the incidence of cancer of the penis in recent years since the study was based on an earlier population. (The age-adjusted risk in 1947 was 1.4 cases per 100,000 per year and, in 1971, 0.9 cases per 100,000 population.)

Median Survival in Study

The median survival for 67-year-old men with cancer of the penis was 7.5 years; for unaffected 67-year-old men, 12.1 years. This would result in 4.6 years of life lost per case of cancer of the penis, or 750 years lost per 100,000 uncircumcised men. Therefore, a favorable increase in life expectancy would be expected with a mortality of less than one per 100,000 neonatal circumcisions. These figures do not consider the morbidity of those affected, which may be considerable.

There also may be other risk factors contributing to cancer of the penis. The relatively low incidence of the condition in Sweden where circumcision is not popular has been attributed to good hygiene.[14]

It has been suggested that there may be an increased risk of cancer of the cervix in the spouses of uncircumcised men. Historically, this notion can be traced back to the work of Stern in 1842.[15] In a study of deaths due to cancer of the uterus in Verona, he found that the condition was more common in married women. It also has been noted that the condition is rare in Jewish and Moslem women where circumcision of the males is customary.[16] Hochman[17] has reported the annual incidence of cancer of the cervix in Israel among Jewish women to be 2.2 cases per 100,000 population, compared with an annual incidence of 17 cases per 100,000 in Sweden and 44 cases per 100,000 in the United States among all women. It also is known that cancer of the cervix is almost unknown in nuns.[18]

The data regarding circumcision and carcinoma of the cervix are difficult to interpret because of different genetic predispositions to cancer in general such as in the Fiji Islands where it is very low.[19] There also are ethnic differences in personal hygiene and social customs. Some studies do not distinguish husbands who are incompletely circumcised.

In Kmet's[20] study, in 1963, in Macedonia, 2,555 non-Moslems, 540 emancipated and 538 orthodox Moslem women were studied. It was found that the incidence of cancer of the cervix in non-Moslems who did not generally practice circumcision was 11 per 1,000 and 2.7 per 1,000 in Moslems practicing circumcision. Further analysis showed that the Moslem group could be broken down into "emancipated" Moslems in whom the incidence was 5.5 per 1,000 and in orthodox Moslems in whom no cases were found. The orthodox group practice strict personal hygiene, such as bathing after intercourse, shaving the genital area and adhering to very strict social customs. An interesting additional finding not further elaborated on was that cancer of the breast and stomach was more common in the Moslem group.

Other Studies

In studies done in Los Angeles by Jones,[21] it was found that when Jewish women were excluded the frequency of circumcision was the same in cases of cervical cancer as in controls. Aitken-Swan and Baird[22] studied 54 cases of cancer of the cervix and 56 controls. Patients with cancer of the cervix tended to share early first coitus, high parity and low social economic status. They found that 22 per cent of cases and an equal per cent of controls were married to husbands who were completely circumcised.

Plaut and Kohn-Speyer[23] have produced evidence that smegma is carcinogenic when applied to the skin of mice. Weiss[24] did not find human smegma carcinogenic when introduced intravaginally in monkeys.

Dodge,[25] in studies in Kenya, found a higher incidence of cancer of the penis in tribes that did not practice circumcision, but did not find a similar relationship with cancer of the cervix in the women of the same tribes.

The factors most commonly associated with cancer of the cervix therefore include the married

state, early age of marriage or first coitus, multiple or broken marriages, high frequency of sexual intercourse, lack of use of obstructive contraceptives, and low social economic status.[22, 26] The low incidence in Jewish women may be related to genetic factors or hygiene. The low incidence in nuns may be because they do not fall into any of the above risk categories and do not have intercourse.

The decision on circumcision will most likely remain based more on emotional than scientific reasons. The most sound medical indications appear to be related to hygiene or prevention of cancer of the penis although these benefits are not completely demonstrated, as discussed earlier. Absolute contraindications are prematurity, neonatal illness, congenital anomaly (especially hypospadia) or bleeding problems.[2] Medical-legal problems regarding informed consent could develop in those patients unfortunate enough to develop serious complications.

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Special Article

Appropriate Use Of Antibiotics: Why Should We Care?

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Antibiotics generally are considered to be at or near the top of the list of modern medical advances. This is, to some extent, justified, since their use has had a great impact on morbidity and mortality of certain infectious diseases, such as bacterial meningitis and rheumatic fever. However, it often is forgotten that the major infectious problems, with respect to morbidity and mortality, at the turn of this century (i.e., tuberculosis, the bacterial diarrheas, and diphtheria) were not impacted as significantly by the development of antibiotics as they have been by our improved public health measures, improved general standards of living (better nutrition and less crowding), and, to a lesser extent, by the development of various immunization procedures.

It also often is forgotten that some of the most common infections for which antibiotics are prescribed cause very little morbidity and almost no mortality. Thus, women presumably have been troubled with urinary tract infections for millions of years and, despite some annoyance, have survived these without significant difficulty prior to the advent of Keflex®.

This paper tries to put in proper perspective the good and the harm which antibiotics have brought us, the hope being that practicing physicians, having had their "consciousness raised" with respect to the latter, will be less cavalier regarding their prescribing habits of this class of drugs.

ANTIBIOTICS generally are considered by the public as well as by physicians as being at, or near the top, of the list with respect to major medical advances in the last 30 to 40 years. One need only remember, or talk to someone who remembers, the fear that a meningitis epidemic caused, the deaths from pneumonia in apparently healthy individuals at the prime of their life, or the filled tuberculosis sanitaria, as a few examples of changes which have occurred from the pre-antibiotic era to the present. One need only look at data such as are depicted in Table 1 to realize the tremendous decrease in lethal infectious disease which has occurred during the course of the Twentieth Century. The advent of antibiotics gets a great deal, if not most, of the credit — again, both in the eyes of the general public and the medical community.

Is this really justified, however? The answer is partly "yes," mostly "no." Antibiotics have been a great advance, and one need only point to the examples of pneumococcal pneumonia and the various forms of bacterial meningitis to show this. However, two relevant questions are: (1) How much of the decrease in morbidity and mortality from infectious diseases has been caused by the advent of antibiotics?, and (2) How much harm has been done by the use of antibiotics?

With respect to the former, the answer is fairly clear. The marked decline in mortality from tuberculosis which has occurred during this century largely antedated the introduction of streptomycin in the late 1940s. This marked decrease in deaths from tuberculosis generally is thought to be a result of an increased standard of living with decreased crowding, better nutrition, etc. Similarly, the decrease in deaths from the bacterial diarrheas also antedated the introduction of antibiotics, and also is felt to be due to improved public health and hygiene such as improved waste disposal and safe drinking water.

TABLE 1

Death Rates in United States, 1900 and 1970

Cause	1900		1970	
	Deaths per 100,000 populations	*% of all deaths*	*Deaths per 100,000 populations*	*% of all deaths*
Infectious Diseases	540	33	40	4
Epidemic diseases	150	9	5	0.6
Tuberculosis	200	12	2	0.2
Meningitis	30	2	1	0.1
Pneumonia and influenza	170	10	30	3
All causes	1660	100	940	100

Thus, the decreased morbidity and mortality from infectious diseases, which has been one of the most impressive events of the Twentieth Century, largely has been a result of improved public health measures and immunization. Therefore, it is not completely in jest to say that if one had a choice between living in a society with good sanitation engineers or antibiotic manufacturers that one would pick the former, or that a choice between a public health nurse and an infectious disease physician should lead one to pick the nurse.

The second question is more complex and will be the main topic of this paper, i.e., how much harm has been caused by the use of antibiotics?

Cost

One of the most apparent factors of antibiotics is cost — until recently of little concern. Antibiotics are, next to the sedative-tranquilizer group of medications, the most commonly used class of drugs in the United States. In 1970, the pharmaceutical industry sold about $580,000,000 worth of antibiotics (not including the mark-up by individual pharmacies or the cost of administering the antibiotics). By 1974, this figure had grown to $830,000,000, and it is estimated that, in 1980, the figure surpassed $1.5 billion. This impressive increase in gross sales of antibiotics by drug companies is more than the rate of increase in all sales by this industry since antibiotics accounted for 15.9 per cent of the total ethical pharmaceutical sales in 1974 and were estimated to account for 17.7 per cent in 1979.[1] (The use of the term "ethical" pharmaceuticals is not mine, but is an interesting term, presumably coined by the pharmaceutical companies. I suppose this implies that over-the-counter medications are "unethical.")

As a result of this large gross income from antibiotic sales by the manufacturers, any healthy skeptic must question the objectivity of the pharmaceutical companies in dealing with the development, research, and promotion of this group of drugs.

Education of Physicians Regarding Antibiotic Use

This brings us to the question of how physicians obtain their continuing medical education with respect to antibiotics. This mainly comes from two sources: (1) the literature which is sent to physicians from the antibiotic manufacturers, either directly or personally delivered by the drug company representatives, and (2) the written and spoken word of medical educators who are the so-called infectious diseases experts.

More discussion of the former type of education would seem to be superfluous since one would have to be terribly naive to assume that drug companies are objective in their attempts to educate the physician regarding antibiotic use. However, several examples might be cited. The first is the development of the "me-too" antibiotics. These are antibiotics which have a slightly different structure than one which is already on the market, but have essentially the same activity and can be used interchangeably with the original drug. One could argue that "me-too" antibiotics provide competition and help bring down the cost of antibiotics, but it seems doubtful to me that the "me-too's" end up saving the public money since we certainly end up having to pay, in the long run, the cost of development, testing, marketing, etc. of the new drug. Examples of "me-too" antibiotics are the various tetracyclines and the several penicillinase-resistant penicillins. There are also borderline "me-too" antibiotics, antibiotics that can be argued to have a slight advantage over the prototype, but which, when analyzed stringently, have such marginal advantage that it is questionable that they are worth the investment. Examples of this are ticarcillin (similar to carbenicillin) and amoxicillin (similar to ampicillin).

A second example is the testing of cephalosporins in the treatment of infections which are readily, and more cheaply, treated by standard antibiotics. Examples of such studies which have appeared in the recent literature are the treatment of streptococcal pharyngitis, and the treatment of pneumococcal pneumonia, with cephalosporins. In both cases, there is no need for the development of new antibiotics since penicillin is eminently successful in the treatment of these two infections. In the penicillin-allergic patient, erythromycin is very effective, and there is serious question whether cephalosporins should be used anyway in the penicillin-allergic patient. (This will be discussed in more detail below.)

The two previous examples are in the category of development and testing of antibiotics by the drug companies. The most flagrant examples of non-objectivity and clammering after profits can be seen in the questionable advertising practices of the antibiotic manufacturers. Two examples will suffice: One is in the advertising of a new cephalosporin. Recent two-page advertisements have shown on the left-hand page a beautiful sunset with the product name, implying that the product's day in the sun as an important and effective antibiotic is over. On the right-hand side of the page is a beautiful sunrise with the

equally large name of another product, implying that the sun is rising on a new era in antibiotic therapy. This is very clever but also very misleading. I shall discuss below the appropriate use of cephalosporins, which should be used very rarely anyway, but there is almost no reason why a new product should replace the old one. The reason for the drug manufacturer might be that the patent on the old product will expire, at which time there will be a lowering of the price by competitors, and a loss of some of the market to other manufacturers of the old product.

Another Example

Another example is the advertisements for a brand name for cefoxitin. The ad states that the product (cefoxitin sodium) is the first cephamycin derivative for most hospital infections* even before culture results are in. To me, this implies that cefoxitin should be used for most hospital infections until culture results have been reported. The statement I noted above is in very large and bold print. The asterisk, as indicated above, is printed in very thin print and states "* due to susceptible strains of indicated bacteria at indicated sites."

A more subtle danger with respect to educational bias is presented by the written and spoken word of medical educators and researchers. These are nearly all respected medical school faculty members, many from the most prestigious medical schools who have published widely in the best medical journals. Surely one could assume the information which they present in their review articles on antibiotic usage or in their talks at large regional and national meetings must be accurate. I fear that I must again raise a word of caution, based on healthy (hopefully) skepticism.

One must remember that there are at least a couple of reasons why these researchers may not be completely unbiased. First of all, many receive their financial support, at least in part, from pharmaceutical companies which manufacture some of the antibiotics they write or talk about. This financial assistance is in the form of research support, which may pay for laboratory technicians, equipment, supplies, etc., this assistance not only paying for the work which is carried out on antibiotics, but in some instances for other research endeavors going on in the laboratory. The assistance also is in the form of payment for speeches which are made at various universities and medical societies around the country, and funds to travel to national and international research meetings, some in very delightful places such as Zurich, Paris, etc. Either consciously or subconsciously, humans find it difficult to bite the hand that is feeding them.

Secondly, once an investigator has performed a study for a pharmaceutical company with respect to a specific antibiotic, finds the results favorable, and publishes these results, the investigator has a professional and emotional interest in that particular antibiotic. She/he wants that antibiotic to be successful, not for financial gain, but for professional and ego satisfaction.

Bacterial Resistance

Antibiotics are very interesting because they differ from all other drugs in at least one very important characteristic: they not only have their direct effect on the patient, but they also alter the ecology of the patient, and to some extent the ecology of all of us. In that way, antibiotics are analogous to air and water pollution. If a patient is given digitalis, the effect of digitalis is only on that patient, except very indirectly on the patient's family, friends, etc., as a result of his/her hopefully improved health. However, if a patient has a staphyloccal carbuncle, those staphylococci are likely to be resistant to penicillin, not because of anything that the patient has or has not done, but as a result of the widespread use of penicillin by a lot of physicians on a lot of other patients. Thus, the use of antibiotics by and on others in the community has a fairly direct effect on my microbial flora, i.e., my ecology.

I think the evidence is very solid that the use of antibiotics leads to the development of resistant bacterial strains, and that, by and large, this is bad. Examples are fairly numerous, and some of them somewhat frightening such as, in the late 1950s and early 1960s, the resistance of staphylococci to all of the safe, available antibiotics; the appearance of ampicillin-resistant *Hemophilus influenzae* strains; the appearance of multiple-resistant pneumococci; and the appearance of beta-lactamase-producing gonococci, rendering penicillin an ineffective drug in the treatment of gonorrhea in some areas.

Appropriateness of Antibiotic Use

Despite problems with antibiotic use, if their use is appropriate, i.e., they are used when needed because serious diseases require serious treatment, one could argue that the danger is worth it. Therefore, one should ask the question, "Is antibiotic usage, by the large, appropriate?" The answer is a resounding "no." Several studies have shown that antibiotic use, both in the in-

patient and the outpatient setting, is inappropriate most of the time, i.e., that no antibiotic should have been used, or the wrong drug, route, dosage, or timing was instituted, or that a less expensive, equally effective agent could have been given.[2-6] Most of the inappropriate use involves prophylactic antibiotics for surgical procedures, and the excessive use of cephalosporins.

Prophylactic Antibiotics

First of all, it is important to define "prophylactic" use of antibiotics accurately. I define prophylactic antibiotics as those which are given to prevent infection, as opposed to a more liberal definition, which would imply that prophylactic antibiotics are those which are given to prevent illness caused by an infection. The difference can be made clearer by the use of some examples. Giving antibiotics to a patient with a compound fracture or an otherwise dirty wound, or to a patient who has been operated on and had fecal material spilled into the peritoneal cavity, is not prophylaxis to me. The organisms are there and the antibiotics are used to help eradicate those organisms. Prophylaxis pertains to situations in which the aim is to prevent the implantation of the organism, such as in prophylaxis against streptococcal pharyngitis in patients with a history of rheumatic fever, or the prevention of infections in clean surgery where there has been no obvious break in sterile technique.

In clean surgery, carried out by careful surgeons, the postoperative infection rate should be approximately two per cent. Thus the aim of prophylaxis in this type of surgery would be to eliminate as much of this two per cent as possible. Stated another way, the most one could hope for is that 98 of 100 individuals will be subjected to the danger and cost of receiving the prophylactic antibiotic regimen in the hopes that two of a 100 will be benefited. On the face of it, such a practice would seem dubious unless the risk is extremely grave. Such a grave situation might be present in the case of open heart surgery or artificial joint replacements.

In most situations, however, the trade-off would not seem to be worthwhile. Looking at it strictly from the economic point of view, a postoperative infection would prolong hospitalization on the average of about five days. This would cost society approximately $1,000 per patient, or $2,000 total for our hypothetical 100 patients. The total cost for two days of prophylactic cephalothin, including administration of the antibiotics, would be approximately $50 per patient. Thus, the total cost for our hypothetical 100 patients is $5,000.

In order to be very conservative, I shall not add to that cost the expense of an occasional thrombophlebitis, sepsis from the intravenous catheter which is almost always used on surgical services to administer intravenous antibiotics, or the rare case of superinfection or antibiotic-induced colitis. But even looking at it from a conservative point of view, the economics would seem to indicate that the cost of prophylaxis exceeds the benefit.

If we grant that there are certain situations in which prophylactic antibiotics can be justified, two important questions must be raised: (1) Are surgeons using the most appropriate antibiotic(s)?, and (2) Are they using them for the appropriate length of time? With respect to the first question, studies show clearly that the vast majority of surgeons uses a cephalosporin for prophylaxis.[6] Why is this? The answer seems apparent, and that is that the most publicized studies, a few good, and most bad, which have been carried out to evaluate the usefulness of prophylactic antibiotics, have compared a cephalosporin with nothing or a placebo.

Answer Very Clear

Why haven't the studies compared a cephalosporin with the relatively inexpensive combination of penicillin and streptomycin, or with ampicillin, or with oxacillin? Again, the answer seems very clear: the sponsors of these investigators have not been federal agencies such as the Food and Drug Administration or the National Institute of Allergy and Infectious Diseases (It seems to me that such studies would be an appropriate way for these agencies to spend some of their research funds, but obviously the leadership of these agencies has not, in the past, agreed with this idea.), but have been the drug companies which make and want to sell the cephalosporins. Penicillin, streptomycin, ampicillin and oxacillin are not big money makers for a specific drug company, and therefore there would not be sufficient profits to warrant their supporting such research endeavors.

Therefore, we do not know the answer to the question one raised above. We do not know whether cephalosporins are any more effective than other antibiotic regimens for surgical prophylaxis. We do know that they are more expensive and that a reasonoble evaluation of the question would suggest strongly that there

are other possible regimens which would be at least as effective. Since the main genus about which we are worried is the staphylococcus, I suggest that oxacillin, or some other penicillinase-resistant penicillin, would be equally effective, cheaper, and safer. Actually, the study of Fogelberg *et al.*, published in 1970, is of great interest with respect to this point since they reported that penicillin lowered the incidence of postoperative wound infection after hip and spine surgery even though most of the infections following this type of surgery are due to penicillin-resistant staphylococci.[7]

What about the duration of therapy? Again, studies show that the optimal time to have antibiotics in the body are at the time of surgery and for 24 to 48 hours thereafter.[8,9] Therefore, the rational approach to prophylactic antibiotic use is to begin antibiotics just prior to surgery to insure adequate tissue levels (usually this means the parenteral administration of the antibiotic "on call" to the operating room) and for 48 hours after surgery. However, studies show that most surgeons continue the antibiotics for seven to 10 days postoperatively, thereby increasing the cost and the hazard three-five fold. A recent study showed that almost 80 per cent of antibiotic usage was due to the continued administration of prophylactic antibiotics beyond that 24-48 hours. Most commontly, antibiotics were continued until the time of discharge from the hospital.[6]

Thus, the ideal solution would be to limit the use of prophylactic antibiotics to those situations where they have been shown to be effective, not only in decreasing postoperative infections, but in decreasing them sufficiently to outweigh the cost and danger to the patients who would not have been infected regardless of whether antibiotics were used or not. Also, studies should be performed in which all reasonable antibiotic regimens are tested so that the most effective, safest and cheapest regimens will become known to us. Failing the above ideal, and probably unobtainable utopia, at least antibiotics should be used for the correct, short period of time.

Proper Place of Cephalosporins

Aside from their use and misuse in prophylaxis against infection in surgical patients, there are several other situations in which cephalosporins are used very commonly. In virtually every one of these situations, there are alternatives which are preferable, either on the basis of effectiveness, fewer unwanted side effects, or, most commonly, lower cost.

One such area is the treatment of bacterial infections of the respiratory tract. There never is any reason for using a cephalosporin to treat a patient with streptococcal pharyngitis. In patients with sinusitis or otitis media, ampicillin is the drug of choice. In the penicillin-allergic patient, a combination of erythromycin and a sulfonamide is quite effective. In areas where ampicillin-resistant *H. influenza* are a significant problem, the fixed combination of trimethoprim-sulfamethoxazole is preferred. In patients with pneumonia, the use of cephaloporins often is a response to laziness or insecurity. A good clinical evaluation — including a thorough history; physical examination; careful examination of the sputum using the Gram stain; peripheral white count and differential; and chest roentgenogram — rarely will fail to reveal the most likely pathogen. In an otherwise healthy individual with a community-acquired pneumonia, by far the most likely organism is *Streptococcus pneumoniae*, and therefore the treatment of choice is penicillin, or in the penicillin-allergic individual, erythromycin or tetracycline. The next most likely causative agents, if it is felt that the pneumococcus is not the etiologic organism, are *Mycoplasma pneumoniae* or a virus. Of course, neither of those possibilities would respond to a cephalosporin.

While the vast majority of patients with urinary tract infections will respond quite well to a cephalosporin, as can be seen from Table 2, the cost is quite exorbitant.

The list could go on, but suffice it to say that cephalosporins are the drug of choice in no infection,[10] with the possible exception of *Klebsiella pneumoniae* sepsis where some authorities would recommend the concomitant use of an aminoglycoside such as gentamicin, and a cephalosporin. Others, however, would recommend the use of the aminoglycoside alone.

TABLE 2

Cost to Pharmacist of Antibiotics to Treat Average Adult Woman with Urinary Tract Infection

Antibiotic	*Dose*	*Cost**
Tetracycline	250mg q.i.d.	$ 1.45
Sulfisoxazole	500mg q.i.d.	1.50
Amoxicillin	250mg q.8 h	6.60
Ampicillin	250mg q.i.d.	7.45
Trimethoprim-sulfamethoxazole	2 tabs p 12 h	11.25
Cephalexin	250mg q 6 h	11.65
Cefadroxil	1 gm. b.i.d.	36.95

*Wholesale price

Many would recommend the use of cephalosporins in the penicillin-allergic individual. While this is controversial, I feel this is an error. As an alternative recommendation, I would use erythromycin or tetracycline if the infection is one of modest severity, and would use vancomycin in a severe infection. Other alternatives are chloramphenicol, clindamycin, rifampin, or trimethoprim-sulfamethoxazole. All of these alternatives have the advantage of not cross-reacting immunologically with penicillin. That is not the case with respect to the cephalosporins. But the argument is made that only about 10 per cent of patients who are allergic to penicillin, when given a cephalosporin, will have an allergic reaction.[11-12] This seems like a fairly small number, and well worth the risk. However, what is not recognized is that this percentage is almost identical to the per cent of penicillin-allergic individuals who will have an allergic reaction when given penicillin again.[13] Therefore, if one is to argue that a cephalosporin should be given to a penicillin-allergic patient, then it would make more sense to go ahead and give penicillin (or ampicillin, or oxacillin). Since this is not felt to be prudent (and I agree with that), then it would not seem to be prudent to give a cephalosporin either.

Other Harmful Effects of Antibiotics

As is quite obvious to everyone, all drugs are potentially toxic, and antibiotics are certainly no exception. As a matter of fact, they account for a significant percentage of the adverse reactions to medications, causing many hospitalizations, and extending hospital stays of patients already in hospitals. These adverse reactions are both allergic and nonallergic. Some are severe, such as anaphylaxis and nephrotoxicity, but one should not minimize the minor reactions either, *Candida* vaginitis, or the nausea, vomiting, abdominal pain, or diarrhea that results from many oral antibiotics, are not life-threatening, but are certainly discomforting. Physicians all too frequently are unconcerned about these "trivial" side-effects (until they suffer them). If there is an "after-life," I am sure that Oliver Wendell Holmes is somewhere saying, "I told you so."*

*Holmes: "I firmly believe that if the whole *materia medica* as now used, could be sunk to the bottom of the sea, it would be all the better for mankind, and all the worse for the fishes."

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Medical Grand Rounds

From the West Virginia University Medical Center

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Multiple Sclerosis: A Primary Myelinoclastic Disease

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The epidemiology, clinical features, laboratory studies, proposed etiologies and various treatment modalities are reviewed. In spite of recent developments in the diagnosis and treatment of this chronic disorder it remains a challenge to the clinician.

In the myelinoclastic diseases, the assumption is made that myelin has been formed in a normal manner and that its destruction is the result of injury, either endogenous, exogenous, or a combination of the two. Myelin, elaborated by oligodendroglia, has an intricate structure, containing protein, lipid and carbohydrate combined in a series of spiraling sandwiches. The role of the axon in the production and maintenance of myelin is not clear, but in myelinoclastic disorders the axon appears to be intact while myelin disintegrates. It is impossible to state with certainty which component of myelin is involved in myelinoclasis.[19]

History

Multiple sclerosis was recognized as early as 1838. The term, "la sclerose en plaque," was first used in 1866 by the French neurologist Vulpian. However, the first comprehensive and integrated description of multiple sclerosis was by Charcot in 1868. The term, multiple sclerosis, arose from the observation of neuropathologists early in the past century who noted the presence of multiple hard, discolored, scarred areas within the nervous system. These lesions represented the glial scars, so-called sclerotic areas, which replaced what subsequently were found to be areas of myelinoclasis.

Multiple sclerosis may be defined as an acute, a subacute, or a chronic disorder of the central nervous system, often beginning in young adult life, pursuing a prolonged, irregular, sometimes relentless course "scattered in time and space." It tends to recur and remit episodically, and is manifested by widely distributed neurologic deficits due to multifocal lesions of the brain and spinal cord.[19]

Epidemiology

A vast number of studies of prevalence, incidence, and mortality of multiple sclerosis in many countries have appeared within the past few years. There are problems in interpretation of these studies because of varying diagnostic criteria, quality and access to medical care, and variability in reporting. Historically, a direct correlation between latitude and incidence and prevalence of multiple sclerosis has been accepted; recently, however, too many discrepancies have challenged this axiom.

In a very general way, three zones of frequency for multiple sclerosis have been outlined: (1) a high-risk zone (prevalence 30+/100,000 population), which includes western Europe from Switzerland northward, the northern United States, and southern Canada; (2) a medium-

risk zone (prevalence 5-29/100,000 population), which includes southern Europe, the southern United States and Australia, and (3) a low-risk zone (prevalence <5/100,000 population), which includes Asia and Africa[17] (Table 1).

Increasing numbers of reports suggest that migration at a critical age influences development of multiple sclerosis. A person who is born and lives in a high-risk area until age 15 and then migrates to a low-risk area carries the same high potential of his native land for developing multiple sclerosis. However, if this same person migrates well before age 15 his risk potential is similar to that of his low-risk adopted land. Conversely, if a person is born and lives in a low-risk area but migrates to a high-risk area at a young age his risk potential becomes that of the high-risk area. But, if he migrates from his low-risk native land after age 15 to a high-risk area, his risk potential does not increase. These controversial findings suggest that some unspecified event occurs at or before puberty, but not in infancy, which is related to the development of multiple sclerosis.[4, 5]

Recent excellent studies by Kurtzke[18] indicate that there has been at least one epidemic of multiple sclerosis. The American Public Health Association defines an epidemic as a disease occurrence "clearly in excess of normal expectancy" and likely to be derived "from a common or propagated source."

The Faeroe Islands are a group of small islands between Norway and Iceland with a population of 42,000. In 1939 there were no known cases of multiple sclerosis, but by 1950 there were 13 well-established cases of MS among native Faeroese. In 1961 there were 22 cases and, by 1972, there were 14 cases. In total there have been 24 cases of MS between 1943 and 1960, and one case with date of onset in 1970 in a 20-year-old female.

The conclusion is that the 24 cases of MS between 1943 to 1960 constitute a "point source" epidemic, the result of a cause that was introduced into the Faeroes before 1943. The single most unusual event to occur in the Faeroes was the occupation of the Islands by 8,000 British troops for five years starting in 1940. The troops were scattered about the Islands, and interviews reveal that all but two of the 24 cases of MS had extensive direct personal contact with the troops.

TABLE 1
Zones of Multiple Sclerosis

RISK	*PREVALENCE (per 100,000 Population)*	*AREA*
High	30+	Western Europe Northern United States Southern Canada
Medium	5-29	Southern Europe Southern United States Australia
Low	<5	Asia, Africa ? South America

These observations lend strong support to the postulate that some humoral agent which led to the development of multiple sclerosis was introduced into the Faeroe Islands, implying that MS is an acquired and transmissible disease. The agent and mode of transmission need definition.

Age and sex incidence of multiple sclerosis is quite variable, but 50 to 60 per cent of patients experience the onset of symptoms between 20 and 40 years of age. The average female-to-male ratio is 1.4:1.[19]

The disease has a far higher prevalence among relatives of multiple sclerosis patients than in the general population. Roughly five to 10 per cent of MS patients have relatives with multiple sclerosis.[19] Studies of families with two or more first-degree relatives afflicted with multiple sclerosis have failed to identify a consistent HLA type. Conclusions drawn are that there may well be a genetic predisposition to the development of multiple sclerosis, but that there is no specific genetic factor.[10]

Classification

Multiple sclerosis is classified[20] into three groups according to clinical criteria. These are "definite," "probable" and "suspected" MS. To characterize the disease as clinically-definite multiple sclerosis, there must be objective neurologic findings which reflect predominantly white matter disease. On examination or by history there must be evidence of involvement of two or more separate parts of the central nervous system. The involvement of the neuraxis must have occurred temporally in one or the other of the following patterns: (1) two or more episodes, each lasting at least 24 hours and separated by one month or more, or (2) progression of signs and symptoms over at least a six-month period. In addition, the neurologic presentation cannot be explained better by another disease process.

Probable multiple sclerosis is less clearly defined as a single episode of white matter dysfunction with evidence of at least two or more separate lesions. Alternatively, there may be a remitting or progressive course of a single lesion. Suspected multiple sclerosis is a single episode

of white matter disease with or without evidence of a single lesion.

Obviously, there are many problems associated with this classification, particularly in the suspected and probable cases. Most patients, at least initially, fall into these two categories, and this is when psychological support and parenting counseling are most needed. Newer electrophysiologic techniques and more sensitive and specific cerebrospinal fluid analyses are helping to clarify these issues. It is anticipated that as these tools become more refined and widely used the classification criteria will be redefined.

Clinical Features

There is no classic form of multiple sclerosis, and the clinical manifestations naturally depend upon the particular areas of the nervous system which are involved. For reasons which are unknown, the disease most frequently involves the optic chiasm and nerves, brainstem, cerebellum, and the spinal cord, in particular the corticospinal tracts and the posterior columns.

Ocular disturbances may include diplopia, blurring of vision, diminution or loss of visual acuity (either unilaterally or bilaterally), or visual field defects. In early or very mild optic neuritis, color vision may be impaired to a degree. In about 25 per cent of all patients the initial manifestation of multiple sclerosis is an episode of optic or retrobulbar neuritis. Characteristically, the syndrome is one of rapid evolution of partial or total loss of vision in one eye over a period of several hours to days. The occurrence of papillitis depends upon the proximity of the demyelinating lesion to the nerve head. Of patients with optic neuritis about one third recover completely, one third improve to a considerable extent, and one third show little or no improvement. When improvement occurs, it usually begins within two weeks of onset, as is true of most acute manifestations of myelinoclastic disease. Once improvement in neurologic function begins, it may continue for several months.

About 35 to 40 per cent of patients with optic neuritis will develop other signs of multiple sclerosis within 15 years. As a result of optic tract involvement, complete or partial primary optic atrophy may develop. The Marcus Gunn pupillary phenomenon may occur.

Diplopia in multiple sclerosis is most commonly caused by involvement of the medial longitudinal fasciculus resulting in an internuclear ophthalmoplegia. On looking to one side the abducting eye has a jerky nystagmus, and the other eye does not cross midline. Very few processes other than myelinoclasis can produce such a discrete lesion, making the presence of internuclear ophthalmoplegia almost diagnostic of multiple sclerosis.

The cerebellum or its connections with the brainstem are involved in a number of cases, with resulting speech disturbance, gait ataxia, various tremors, and incoordination. The characteristic scanning speech in combination with nystagmus and intention tremor is known as Charcot's triad.

Weakness of the extremities is the most common sign of disease and may be manifested as monoplegia, hemiplegia, paraplegia, or quadraplegia (or pareses) due to involvement of the corticospinal tracts. Asthenia which is out of proportion to demonstrable weakness is a common complaint.

The most common sensory complaints are referable to the posterior columns, i.e., loss of position and vibration sense. Not infrequently, a clue to the presence of a cervical posterior column lesion is the complaint of a sensation of "electricity" down the back felt upon rapid forward flexion of the neck (Lhermitte's sign).

Cerebral lesions may give rise to personality changes and, in later stages, mental impairment. Euphoria classically is regarded as a striking feature in some patients, but irritability, depression and emotional instability are equally as frequent a feature.

Urinary disturbances are extremely common and include incontinence, frequency and urgency. Appropriate urologic evaluation is necessary for symptomatic therapy.

Erratic or Steady Progression

The clinical course embraces symptoms appearing in the form of acutely or slowly developing episodes. The overall course may be one of erratic or steady progression over prolonged periods. Quiescent intervals, either plateaus of static dysfunction or total absence of symptoms, may last for years. Individual attacks may assume a variety of patterns. A common pattern is one of sudden or gradual development of neurologic dysfunction followed by gradual disappearance of symptoms. In another pattern the neurologic dysfunction may subside to a degree, leaving some residual disturbance. The third pattern is of little or no improvement. Regardless of the course of an individual attack, subsequent recurrence or steady progression usually leads to chronic and permanent disability in the majority of patients and, ultimately, to death.[19]

Pathology

In 1838, Robert Carswell included in his work, *Pathological Anatomy: Illustrations of the Elementary Forms of Disease*, drawings of the brainstem and spinal cord illustrating "a peculiar diseased state of the cord and pons varolii accompanied with atrophy of the discolored portions, all of them occupying the medullary substance which was hard, semitransparent and atrophied."[19]

The gross appearance of the external surface of the brain is usually normal. Cross section of the brain reveals numerous small, irregular, grayish areas in the white matter of the cerebral hemispheres and in the periventricular areas. These are the plaques of multiple sclerosis. Myelin sheath stains show areas of demyelination in regions which are visibly discolored in unstained specimens. Nissl stains show areas of inflammation, which is evidence of recently active disease. Holzer stains show areas of gliosis, the old scarred lesions.

The classic periventricular lesions commonly found at autopsy usually are clinically silent. Similar lesions are seen in the brainstem, optic nerves and spinal cord.[19] On microscopic examination the active demyelinating lesion is typified by perivenular infiltration of lymphocytes and monocytes. The presence of phagocytic cells is indicative of a response, at least in part, to myelin damage. The established active lesion comprises a substantial area of fairly sharply demarcated demyelination showing hypercellularity together with myelin breakdown products. The inactive or "burnt out" lesion is a plaque which has been repaired by astroglial fibers, and the hypercellularity and myelin breakdown products are no longer present.[2]

The anatomico-clinical correlation between the number and location of plaques observed postmortem and the signs and symptoms of the disease antemortem is, in general, quite poor. Even severe myelin destruction and gliosis of descending tracts or optic systems are not always translatable into clinically-manifested or observable alterations of nervous function.[19]

TABLE 2

Cerebrospinal Fluid

Cells—there may be 5-10 mononuclear cells per mm^3; rarely, as high as 100 per mm^3.
Protein—elevated in 30-50 per cent of cases; rarely higher than 100 mg/dl.
Gamma globulin fraction—usually elevated.
IgG—frequently elevated.
Oligoclonal bands—often present.

Laboratories Studies

There is no specific laboratory study for multiple sclerosis. Routine blood and urine tests are normal. Currently, the only study with findings present in a high percentage of MS patients is a careful and sophisticated analysis of the cerebrospinal fluid. There may be five to 10 mononuclear cells per mm^3; rarely, this may reach 100 per mm^3. The glucose is normal. The total protein content is raised in 30 to 50 per cent of cases; only rarely is the protein as high as 100 mg/dl[19] (Table 2).

An elevation of the gamma globulin fraction occurs in many patients. Newer methodology allows the quantification of the CSF IgG, which is frequently elevated. If elevated, the IgG remains stable throughout the course of the illness irrespective of any treatment modalities. Diagnostically-useful qualitative abnormalities in multiple sclerosis CSF immunoglobulins have been recognized by numerous European investigators since 1964.[6] Their introduction to clinical application in the United States occurred only recently after extensive evaluation of their utility and the development of more sophisticated isoelectric focusing techniques. The term, "oligoclonal bands," is used to designate the "discontinuous" aspect of the gamma globulin zone, i.e., the existence of several gamma fractions. The presence of three or more bands has about 95 per-cent positive correlation with clinically-definite multiple sclerosis. This pattern is not peculiar to MS, and has been seen in neurosyphilis, subacute sclerosing panencephalitis (SSPE), and many chronic fungal infections. The presence of two bands is a troublesome finding because it may be seen in a wide variety of neurological illnesses as well as in cerebrospinal fluid contaminated with blood. The oligoclonal bands may be present very early in the disease; thus, in difficult diagnostic cases, they are of major benefit.[13] Once present, they are stable and are relatively unaffected by various treatment modalities.

The observation by electron microscopy of myelin fragments in the CSF sediment of MS patients during an acute attack prompted the development of radioimmunoassay techniques for the assay of myelin basic protein. The techniques have not yet been refined to be of practical clinical benefit. In addition, their usefulness is limited by the presence of myelin basic protein only during recent demyelination.[13]

Recent advances in neuroelectrophysiologic techniques have added a new dimension to the detection of subclinical lesions and to the con-

firmation of suspected lesions. Evoked potentials provide objective measures of impulse conduction in various central white-matter tracts. An evoked response is the electrical manifestation of the brain's reception in response to an external stimulus (visual, auditory or somesthetic).[7]

Evoked Responses

In visual-evoked responses (VER), pattern shift stimuli are presented to one eye and the response is recorded by midline occipital electrodes. Any prolonged latency, if retinal pathology is excluded, implies a disturbance in the optic tract. The most common cause of such a disturbance is demyelination. The major clinical utility of the VER is its ability to demonstrate clinically-unsuspected lesions in the optic nerves of patients suspected of having MS, especially since the optic nerves have a high incidence of lesions in MS. In clinical trials, VERs revealed evidence of a clinically-unsuspected lesion in 20 per cent of the possible MS group and 41 per cent of the patients in the probable MS group (Figure 1).[7]

In brainstem auditory-evoked responses (BAER), a standardized auditory stimulus is delivered repetitively to one ear and the responses recorded from posterior midline electrodes. The recorded waves putatively correspond to various elements of the auditory pathway. Wave I represents the auditory nerve; Wave II, the cochlear nuclei in the pons; Wave III, the superior olivary complex; Wave IV, the lateral lemniscus; and Wave V, the inferior colliculus in the midbrain. Interwave latencies and amplitude ratios are determined. The BAER is useful in MS for much the same reasons as the VER (Figure 2).[7]

Somatosensory-evoked responses involve delivering a stimulus, usually electrical, to a peripheral nerve such as the median and recording the responses in three locations: over Erb's point, in the posterior neck over C2, and midline vertex. Clinically-unsuspected lesions were detected by this technique in 41 per cent of MS patients, making it more useful than VERs and BAERs. However, many technical refinements are needed before it will have widespread clinical acceptance.[7]

Etiology

In 1835, Cruveillhier attributed the cause of multiple sclerosis to the suppression of sweat.[3] While that theory certainly appears ludicrous today, current proposals may well be viewed just as ludicrous in a few years.

Over the past two decades, widespread efforts have been made to define the serologic activity of cerebrospinal fluid, especially antibodies to viruses. Determination of serum and CSF antibodies by standard serologic methods and radioimmunoassay techniques has revealed a signifi-

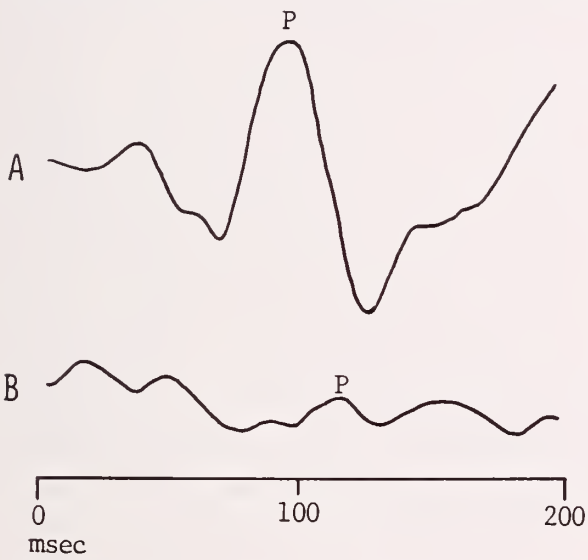

Figure 1. Visual-evoked responses (VERs) recorded wtih stimulation of (A), left eye, and (B), right eye, using pattern shift reversal at one per second (averages of 50 stimuli). This patient is a young female with acute right optic neuritis. The P-100 latency recorded from stimulation of the (A), left eye, is normal whereas that on the (B), right, is prolonged and the amplitude is diminished.

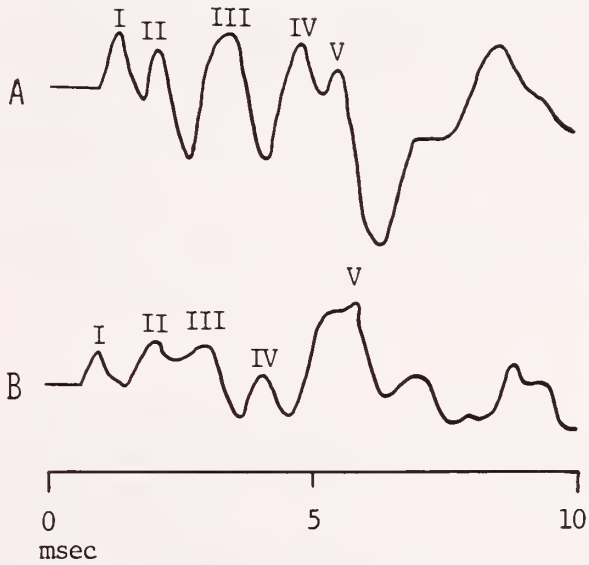

Figure 2. Brainstem auditory-evoked responses (BAERs) recorded with stimulation of (A), normal control's right ear, and (B), patient's left ear, using rarefaction clicks at 11.1 per second (averages of 2000 stimuli). Recorded interwave latencies and amplitudes of (A) are normal. The III-V interwave latency in (B) is prolonged, suggestive of a pontomesencephalic lesion such as may be seen in multiple sclerosis. However, the most common BAER abnormality in MS patients is seen in waves IV and V.

cantly higher percentage of clinically-definite MS patients with CSF antibody to measles, rubella and varicella viruses than in matched controls. In addition, there appears to be a correlation between severity of illness and presence of CSF antibodies. CSF antibody tends to mirror high serum antibody titers, but patients with high serum titers do not necessarily have antibodies present in the CSF. Current research suggests that antibodies are produced within the CNS by repeated recruitment of programmed antibody-forming cells. Perhaps only five per cent of the total CSF IgG is viral antibody.[8,12,14,15] The presence of antibodies in the CSF and their correlation with severity of disease may reflect an influx of inflammatory cells reacting to damaged tissue at plaque sites.

Many alterations in the immune system in multiple sclerosis have been described; however, it is not clear whether these are causative elements or are fluctuations resulting from the disease. Several possible schemes suggesting the development of the disease by an immune process can be considered. These involve alterations in cells of the immune system or neural tissues, perhaps induced by a virus, resulting in either a lack of adequate control of a viral infection of the CNS, or alternatively, an autoimmune destruction of nervous tissue.[16]

A number of questions have been posed concerning the etiology of multiple sclerosis: (1) What is the genetic susceptibility that predisposes a person to clinical MS? (2) What is the event that may have sensitized the immune system and thereby incited the immune process? (3) What is the target antigen for the immune attack on myelin? (4) What is the defect in immunologic regulation that may explain the variability of disease activity?, and (5) What is the actual mechanism of demyelination?[15]

Treatment

The evaluation of any therapeutic agent in multiple sclerosis is difficult because there is no reliable and pathognomonic laboratory test for this disease, nor is there a test for evaluating the activity of the disease. The disease itself is characterized by spontaneous remissions known to occur with a relatively high frequency. Many agents and methods have been used as treatment modalities with varying degrees of success.

Trials of short-term and long-term treatment of multiple sclerosis with systemic glucocorticoids and ACTH have shown a beneficial effect in curtailing the duration of an acute disease exacerbation. However, in the long run, these treatments did not prevent the occurrence of relapses and further deterioration. The beneficial effects may be due to the anti-edema actions of these agents.[11] Recent reports using high-dose intravenous pulses of corticoids have been encouraging because of the dramatic relief of an acute exacerbation, though long-term effects are not yet known.[9]

The use of alkylating agents such as cyclophosphamide (Cytoxan) in various treatment strategies has shown a possible drop in relapse rates and even slowing of chronic progression. However, the long-term side effects of these agents make their use undesireable. Conflicting reports abound about the efficacy of antimetabolites such as azathioprine (Imuran). Numerous trials suggest that chronic long-term administration of this agent may decrease the relapse rate and even slow the progression in chronic progressive disease.[11] A relatively new agent, cyclosporin A, with potent immunosuppressive activity, is being used in numerous transplantation protocols and shows promise of being an efficacious agent.

If multiple sclerosis is caused by an immune system deficiency, perhaps augmentation, rather than suppression, of the immune system is a more logical treatment method. In this vein, transfer factor has been used. While animal studies were hopeful, clinical trials have not realized those expectations. The best that can be said is that some highly selected patients may benefit from transfer factor.

The use of the responsible antigen as a means to suppress experimental allergic encephalomyelitis and, by extension, multiple sclerosis, has been tried and the results are mixed. This postulate led to the development of synthetic polypeptides with the intent of imitating the suppressive action of myelin basic protein on experimental allergic encephalomyelitis. One of these compounds, Copolymer I (a tetrapeptide), currently is being used in a double blind, placebo-controlled, randomized two-year trial of clinically-definite multiple sclerosis patients with the relapsing and remitting form of the disease.[1]

Other measures tried include CNS irradiation,[21] linoleic acid and snake venom.

Once the etiology and pathogenesis of multiple sclerosis are known, efforts can be directed towards its prevention. Though the role of measles virus in the development of multiple sclerosis is quite unclear, epidemiologic investigators currently are looking for a trend in the incidence of MS in the 1980s with particular emphasis on

populations which were inoculated against measles during childhood.

Editor's Note: Here are the generic drugs and trade names (in parentheses) to which reference is made in this manuscript: cyclophosphamide (Cytoxan) and azathioprine (Imuran).

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A message from . . .

The President

WE MUST LEAD

I begin my term as President of this Association by reflecting upon the changes that have taken place in medicine during my relatively short career as a physician.

In the past two to three decades we have seen many attempted changes. ideas of probably well-meaning, well-intentioned social planners and political groups. Unfortunately, most were changes for the sake of change alone. ending in great outlays of money, and little or no value was seen.

We saw an increased harassment of the physicians in this country. We have only to look at HSA, PSRO and other such programs to see how they have increased the cost of medical care without improving the quality. and programs foisted under the guise of education, but in fact, attempts at cost containment.

During this time, we in organized medicine stood by objecting without advocating anything except a status quo. We felt insulted by the brashness of groups who would suggest a different way. We were too busy with self-adulation on our self-erected pedestals to appreciate the fact that these groups were prohably groping for leadership from the medical community. Finding only frustration, they initiated new programs which would eventually lead to some form of socialized medicine.

The past couple of years I have perceived a retreat from this plan on health care delivery, although we are now faced with newer threats to the system that has provided the highest quality of medical care in the world without reservation. Before these groups become powerful enough to again mislead, we as leaders in the health care field must counter and . . . LEAD!

We as individual practitioners and, as members of organized medicine, must provide the direction and guidance to the various political entities at whatever level. We must make sure that any plan is always in the best interest of our patients, and that it permits us the freedom to provide quality care in the least expensive manner on a personal, patient-physician relationship.

We have been given a second chance. We cannot and we must not fail. We must lead!

John B. Markey, M. D., *President*

The West Virginia Medical Journal

Editorials

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THE WELFARE TEETER-TOTTER

It sometimes seems that the more effort one puts forth to work with the bureaucracy, the more difficult and frustrating the task becomes. Dealing with the West Virginia Department of Welfare generally is like being on an old-fashioned teeter-totter. Just when it appears that some reasonable communication is established, everything suddenly goes the other way.

An experience with Commissioner Leon Ginsberg in recent weeks illustrates quite well the dilemma. The State Medical Association's legislative staff put forth unprecedented effort on behalf of the welfare agency, and in particular its budget request, during regular and special sessions of the House and Senate this year.

Certainly, the Association is a professional organization, and it is interested in the government paying for the services it promises and provides. But even more important, this Association has spoken out strongly over the past two years, in particular, against any system that might produce two levels of care. In other words, the Medicaid recipient is entitled to, and should get, the same care as anyone else. *We have been equally strong in condemnation of fraud in, or misuse of, the Medical Service Program by anyone.*

Some progress was made in this year's legislative jostling, particularly with House budget conferees, in obtaining a reasonable, unfettered fiscal 1982 appropriation for the medical service fund operated by Department of Welfare. The figure was short of what Commissioner Ginsberg and Governor Jay Rockefeller requested — and what the Senate approved — but the results represented a significant improvement over money provided for 1980-81.

The Medical Association has been trying for years also to get some arrangement with Welfare whereby program changes and other problems become known to it before Medicaid or other recipients walk into doctors' offices, or hospitals, with notices no one in the provider area has yet heard about. Some headway has been made here, too.

But in mid-July, Commissioner Ginsberg thoughtlessly — and that appears to be the only way to assess his action — took a giant step toward cooling off the interest of any health care providers in assuring his agency of the kind of cooperation essential if Medicaid services, in particular, are effectively provided.

It seems the Department of Welfare, which has said the Medicaid Program embraces 152,000 persons, sent some type of questionnaire to 1,355 patients who had received services. It called that minute mailing an "audit." From those questionnaires it received 886 responses. Apparently 88 of those individuals — out of 152,000 — provided information which MIGHT represent some overcharges, improper charges or double billings.

What was the next chapter in this intriguing story? An emotional outburst by the Commissioner in a Charleston newspaper — before the Department even took step number one to verify and/or substantiate the so-called irregularities — saying that an "audit" showed there were such double billings or overcharges in 10 per cent of the Medicaid invoices!

This Association took strong issue with this kind of action on the part of the Commissioner, and the letter mailed to him immediately setting forth our displeasure follows. There were some subsequent expressions of embarrassment and contriteness from the Department of Welfare citadel. Commissioner Ginsberg replied to the Association, and that letter also is printed below. That was all fine and dandy — but the damage had been done by the inappropriate and in fact dangerous story which also was loaded with threats against providers attributed directly to the Commissioner.

Others felt the same way. The West Virginia Hospital Association told the Commissioner it was "appalled" by the July 10 news story. The

response to the Medical Association did not address the gut issue of an emotional unloading of scattered and unverified information.

We'll continue to try harder. But on some days, it's difficult. Now, here's the letter sent to the Commissioner by the Association's Executive Secretary, and Commissioner Ginsberg's response:

July 11, 1981

Dear Commissioner:

This is a most difficult letter to write—but I feel that I, as the executive officer of an organization of professional health care providers, have no choice. Some of the points that follow already have been made in a telephone conversation with you.

The matter of concern is a news story carried in Friday, July 10, editions of The Charleston Daily Mail relative to a "sample audit" (in itself a mis-statement) that showed overcharges, improper charges or double billings to the patient and the Department of Welfare in about 10 per cent of a *minute* number of Medicaid cases.

Statements attributed to you in the story implied—without anything resembling verification on the Department's part—widespread misdeeds on the part of West Virginia's health care industry in relation to Medicaid.

In a program of the scope and complexity of Medicaid, certainly there will be billing errors, other problems and, indeed, some problem providers. Even billing clerks in the most sophisticated hospital financial offices have problems keeping track of covered and non-covered services. Your agency's Division of Medical Care has for years identified and dealt with these kinds of situations, generally on a one-to-one basis without fanfare. But to use a scant few still-unverified instances of error as a basis for even remotely implying widespread misdeeds by providers is inappropriate and unfair.

Let's also keep in mind that difficulties in payments to providers, including consistent delays which can lead to billing problems, have resulted in large measure over the years from inefficiencies in the Department of Welfare's own administrative machinery. Hopefully, most of those problems now are behind us with the Medicaid Management Information System, but let's also not forget how many hundreds of thousands of dollars it cost to get MMIS into operation after some unfortunate experience with one contractor and growing pains with another. No provider had anything to do with that. We also understand that the Department again is, at the present time, well behind in payments to providers—a situation apparently resulting from at least some problems related to the freeze on state expenditures. Hospitals tell us they generally haven't been paid since April.

Let's further examine the basis for the July 10 story. The Department of Welfare sent 1,355 questionnaires (these hardly represent an "audit") to Medicaid patients in May and June. The inquiries went to *less than one per cent* of those in the caseload if that total is 152,000. Responses came back from 886 people, according to percentages in the story. That means replies from about one-half of one per cent of the caseload—and 10 per cent of these (apparently 88 people) listed what might or might not be discrepancies, because there has been no verification of the information provided. And yet we have a lead story on page one of the state's largest afternoon daily inferring widespread Medicaid problems with providers!

The tone of some of the quotes attributed to you, and the story in general, simply had the effect of applying a broad, black mark on the state's overall health care industry—without which the Medicaid Program simply cannot be operated. We have found particularly troublesome, particularly in the light of great efforts this organization as well as others have put forth to help your agency in the legislative halls—and frankly, to keep providers in the program—some quotes which seem to be threats to providers.

For example, you were quoted that if providers don't know it's a criminal offense to bill a Medicaid patient for something covered under the program, "they better learn it fast." We also understand that you are going to "educate fast" doctors, druggists and billing clerks that might not understand some parts of the program. We'd honestly suggest that some of this kind of help could have been provided by the Department in much better fashion over the years—and that some education within the agency itself might have been done more effectively.

In summary, making available the kind of information —or lack of it—such as appeared in the July 10 story was, from our standpoint, most unfortunate and potentially damaging to the program itself. This Association has spoken out strongly against Medicaid Program misuse, in West Virginia Medical Journal editorials and otherwise. This is known to you. Other organizations certainly stand just as strongly in opposition to improper conduct by providers, recipients or anyone else.

We deeply regret having to get into this particular matter at all. But the Medicaid Program is going to be only as effective as the meshing of all of its component parts, including provider participation and cooperation. News stories such as that on July 10 are not going to contribute to that effectiveness.

With best wishes, I am

Sincerely,
Charles R. Lewis
Executive Secretary

(Here is Commissioner Ginsberg's reply, dated July 16, to Mr. Lewis' letter.)

I know it was difficult for you to write that critical letter to me and you can be sure that I take no great pleasure in criticizing health care providers.

Frankly, I am not proud of the story the Charleston Daily Mail carried on July 10 and I think if something more exciting had been happening, it would not have been so prominently played.

I think that if you heard my radio or television comments following up on this story, you would agree that I was not really strident. I was, in fact, complimentary about the mass of health care providers who do everything quite correctly.

Frankly, I was outraged by some of the responses from some of our clients. And I think you would be too if you looked at them. I will be happy to show them to you, with the names of the clients disguised, so you can see what I mean. The information was simply much too specific to have been a misunderstanding. Clearly some of the health care providers are taking our billing system into their own hands and charging patients when they are forbidden to do so. Some of these providers obviously do not pay attention to our communications from Charleston. It seems to me that they might read the newspapers.

Part of the problem is, as you know, the tone of afternoon newspapers. Part of the problem is the way I deal with the press, and part of the problem is the way providers deal with Medicaid patients.

In any case, I apologize for any ill will I may have caused and I am very pleased that you will be serving on the Advisory Board to help me avoid other blunders. *(Mr. Lewis has accepted an appointment by the Commissioner to the Department's five-member State Advisory Board for a term to end June 30, 1982.)*

Best wishes.

Leon H. Ginsberg
Commissioner
West Virginia
Department of Welfare

INSURANCE

It's almost that time of year again—the time to renew your professional liability insurance policy. There are few decisions deserving of more care and attention. And there perhaps are none in which the dollar, alone, involved in your renewal premium can prove of minimum overall significance if malpractice claim troubles arise down the road.

The State Medical Association had the foresight, at the beginning of the last decade, to recognize a real forthcoming crisis in medical malpractice litigation—and to develop for its membership a solid, endorsed liability insurance program. For many years, as numerous other companies dropped out of the picture, the Association program was virtually the only one offering such coverage to West Virginia physicians.

The Association is continuing the endorsement concept with a new carrier, CNA. But the overall picture has changed in just the last relatively few months, with several companies again on the West Virginia scene. Two are writing claims-made policies, and at least four are now providing occurrence insurance, including the Association's carrier.

For the physician, such competition is welcome, and can be highly beneficial. For the insurance industry in general, competition can have many healthy elements. But with increased availability, the physician, and/or his or her group, face some new challenges and responsibilities.

The Medical Association feels its program, with a market guarantee; a consent to settle provision for the doctors it covers; an in-state managing general agent to provide a variety of technical and other services; a financing plan; a solid risk management-loss control and education program; and a profit-sharing mechanism, deserves close and detailed consideration.

But we'd like to leave one major throught with all physicians. Don't jump too quickly as renewal time comes. Find the time, and the outside expertise if necessary, to evaluate carefully ALL of the options you have.

Determine just what carrier can offer you the most for the money. Look at the financial stability and the track record of those writing insurance. Make certain you can be comfortable with the service you might suddenly need if a malpractice claim or suit surfaces in your practice. *And consider carefully what long-term commitment to West Virginia medicine a carrier is making.*

In other words, look over the field—and do it completely. Don't shop just for price. The Association recommends its endorsed program to you for, as we said above, your most considered review and attention. The Association stands ready to help with any questions you have.

ASIM JOINS PLANNING CHORUS

Another strong voice — that of the American Society of Internal Medicine—has been added to those calling for repeal, or at the very least defunding, of the Health Planning and Resource Development Act of 1974, as amended in 1979.

After looking at a number of studies and other information, the ASIM determined in a recent report that "it appears. . . . health planning and CON (certificate of need) are of dubious worth on several counts." It added:

"They are cost-containment tools which cost a great deal, directly and indirectly, and ultimately save little. As a mechanism to improve access (to health care) they have done little and may have actually had a negative impact in many cases.

"In view of the apparent shortcomings of federal health planning, the American Society of Internal Medicine believes that repeal of PL 93-641 (the Health Planning Act), or at the very least elimination of funding, would be a desirable goal.

"Health planning is most effective when allowed to respond to local conditions and specific needs. The combination of local political forces and the market forces in the economy are the most effective agents of health care planning. There are several studies which substantiate this view. . . ."

The ASIM then listed some of those studies and conclusions they produced. One found that regulation of the U. S. medical care system "is inherently difficult because of the complexity of its output and because the influence of providers over regulation is quite strong."

That study suggested that regulatory reform to improve incentives, make the system more responsive to consumer preferences and reduce the anti-competitive effects of existing regulation could be very beneficial.

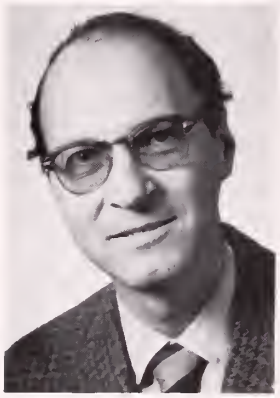
Still another study argued that private-sector efforts to contain health care costs are likely to be more effective than government-sponsored controls. Therefore, the study said, Government efforts should be confined, at least initially, to untying and strengthening the private sector's hands.

GENERAL NEWS

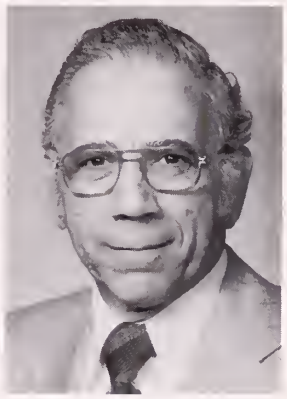
'Black Lung,' High-Risk Infants On Mid-Winter Program

A Morgantown specialist in pulmonary diseases and a Charleston pediatrician will be among the speakers for the 15th Mid-Winter Clinical Conference to be held in Charleston next January 22-24.

The annual continuing medical education event is sponsored by the State Medical Association and the Marshall University and West Virginia University Schools of Medicine.



N. LeRoy Lapp, M. D.



Herbert H. Pomerance, M. D.

Dr. N. LeRoy Lapp, Professor of Medicine and Chairman, Division of Pulmonary Diseases at WVU School of Medicine, will speak during the Saturday afternoon, January 23, session on "Current Controversies in Medicine." Doctor Lapp and another physician will address the topic of "Pneumoconiosis-Occupational Lung Disease (Black Lung Controversy)."

Dr. Herbert H. Pomerance, Chairman of the Department of Pediatrics at Charleston Area Medical Center, and Professor of Pediatrics, WVU Charleston Division, will speak during the Sunday morning, January 24, session. His topic will be "Recognition and Management of High-Risk Infants."

The conference, again to be held at the Holiday Inn Charleston House, will begin Friday afternoon, January 22, with talks on current diagnostic procedures in heart disease, followed that evening by a physicians' session presented by the West Virginia Medical Institute, Inc., and a concurrent public session on food additives.

The program planned to date also includes the subjects of food additives, repeated for physicians Saturday morning; problems of the elderly, also Saturday morning; prostatic carcinoma, during the Saturday afternoon session on "Current Controversies in Medicine;" and high-risk mothers and thyroid disorders, Sunday morning.

The Program Committee, again headed by Drs. Joseph T. Skaggs and Ralph H. Nestmann, both of Charleston, will be providing more details as to specific subjects and speakers in upcoming issues of *The Journal.*

Doctor Lapp, who has been with WVU since 1966, is a Diplomate of the American Board of Internal Medicine, Subspecialty Pulmonary Diseases. He is a former Chief of the Cardiopulmonary Unit (1966-70) and Chief of the Medical Research Branch (1970-75) of the Appalachian Laboratory for Occupational Respiratory Diseases (ALFORD), U. S. Public Health Service, in Morgantown.

A native of Perkasie, Pennsylvania, he received his M. D. degree in 1961 from Temple University. He served his internship at St. Luke's Hospital in Bethlehem, Pennsylvania, and completed residencies at that institution and at the Mayo Graduate School in Rochester, Minnesota.

Doctor Lapp is the author or co-author of 65 scientific articles and abstracts.

Doctor Pomerance also is Assistant Chairman, WVU Department of Pediatrics, and currently is serving as Chairman of the West Virginia Chapter, American Academy of Pediatrics.

He also is Medical Director of the West Virginia Poison Control System and a member of the Advisory Council of WMUL-TV Educational Broadcasting Station.

Doctor Pomerance, a native of New York City, is a Fellow of the American Academy of Pediatrics. He received his M. D. degree in 1941 from Columbia University, interned at Memorial Hospital in Wilmington, Delaware, and completed residencies at Gouverneur Hospital, Willard Parker Hospital and Lincoln Hospital, all in New York City.

Doctor Pomerance, who came to Charleston in 1970, is the author of the book, *Growth Standards in Children*, published in 1979.

Also serving on the Program Committee are Drs. William O. McMillan, Jr., Charleston; Maurice A. Mufson, Huntington; Robert L. Smith, Morgantown, and C. Carl Tully, South Charleston.

The Committee also is receiving continuing assistance from WVU Charleston Division staff members J. Zeb. Wright, Ph.D., Coordinator of Continuing Education, Department of Community Medicine; and Sharon A. Hall, Conference Coordinator.

CME, Residency Day Programs Scheduled By Marshall

At least two continuing medical education programs and a Family Practice Residency Day are being scheduled by, or in cooperation with, Marshall University School of Medicine in September and October.

Plans call for the Medical School's second annual Surgical Symposium on September 16 at Memorial Student Center; the annual meeting of the West Virginia Sections of the American College of Obstetricians and Gynecologists (ACOG) and the Nurses Association of the American College of Obstetrics and Gynecologists (NAACOG), September 18-19 at the Holiday Inn Convention Center in Huntington; and the Family Practice Residency Day on October 3 at Memorial Student Center.

Guest lecturers for the Surgical Symposium will be Drs. S. Arthur Localio, Johnson and Johnson Distinguished Professor of Surgery, New York University Medical Center; Ward O. Griffen, Jr., Surgery Department Chairman, University of Kentucky; Walter Pories, Surgery Department Chairman, East Carolina School of Medicine, Greenville, North Carolina; and Kenneth Scher, MU Associate Professor of Surgery.

Dr. Alvin L. Watne, Surgery Department Chairman at West Virginia University School of Medicine, will launch the program of 10 mini-sessions dealing with gastrointestinal-related problems and procedures such as polyps, carcinoma, obesity, stapling, bleeding, and inflammatory and diverticular diseases.

Symposium participants may obtain six hours of Category 1 credit in the Physician's Recognition Award of the American Medical Association. The program also has been approved for six Prescribed hours by the American Academy of Family Physicians.

ACOG Faculty

The faculty for the ACOG sessions September 18-19 will include:

Drs. David Charles, MU Obstetrics/Gynecology Department Chairman; John W. Durkin, Jr., Obstetrics/Gynecology Department Director, WVU Wheeling Division; Robert Harris, Clinical Professor of Obstetrics/Gynecology, San Antonia (Texas) Medical School;

William L. Ledger, Obstetrics/Gynecology Department Chairman, New York Hospital, Cornell Medical Center; Gilles R. G. Monif, Laboratory of Infectious Disease, Obstetrics/Gynecology Department, University of Florida College of Medicine, Gainesville; and Patrick E. Williams, Clinical Associate Professor of Obstetrics/Gynecology, WVU Charleston Division.

Topics to be covered will include "Herpes Infection in Obstetrics," "Toxic Shock Syndrome," "Carcinoid Tumors in Pregnancy" and "Tuboplasty in Infertility."

The program is approved for nine hours of credit in Category 1 of the AMA Physician's Recognition Award.

For registration and other information about either the surgical or ACOG program, call the MU School of Medicine's Office of Continuing Medical Education at (304) 526-0515.

Family Practice Residency Day

Medical students from Ohio, Kentucky, Pennsylvania and West Virginia will have an opportunity to talk with representatives from more than 50 Family Practice residency programs from 19 states at the Family Practice Residency Day.

Sponsored by Marshall's Family Practice Department and the student Family Practice Club, the Residency Day is designed to serve as a central point for students to obtain first-hand information on family practice residency programs, according to Dr. William T. Tweel, Jr., Assistant Professor of Family Practice and faculty coordinator for the program.

Student coordinators for the program are Brad Martin of Princeton, Family Practice Club President, and Susan Terry of Weirton, Residency Day Chairman.

More than 2,000 third- and fourth-year students have been invited to participate, Doctor

Tweel said, adding that representatives of family practice programs from all over the United States, from California to New Jersey, will staff information booths. In addition to the booths, a nationally-known family practice specialist will discuss trends in the field in an afternoon session, he said.

Additional information on Residency Day may be obtained by calling the MU Family Practice Department at (304) 526-0630.

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Basic Histology, 3rd Edition, by Luis C. Junqueira, M. D.; and Jose Carneiro, M. D. 504 pages. Price $15.50. Lange Medical Publications, Los Altos, California 94022. 1980.

Current Surgical Diagnosis and Treatment, 5th Edition, Edited by J. Englebert Dunphy, M. D.; and Lawrence W. Way, M. D. 1138 pages. Price $25. Lange Medical Publications, Los Altos, California 94022. 1981.

Review of Medical Physiology, 10th Edition, by William F. Ganong, M. D. 628 pages. Price $17. Lange Medical Publications, Los Altos, California 94022. 1981.

Infertility: A Practical Guide for the Physician, edited by Mary G. Hammond, M. D.; and Luther M. Talbert, M. D. 144 pages. Price $15.95. Health Sciences Consortium, 200 Eastowne Drive, Suite 213, Chapel Hill, North Carolina 27514. 1981.

Doctor Pomerance Appointed

A State pediatrician has been named to a national committee of the American Academy of Pediatrics.

Herbert H. Pomerance, M. D., a Fellow of the Academy, has been appointed to the Academy's Provisional Committee on Practice and Ambulatory Medicine.

State Medical Association Lists Names of New Members

The following is a list by component societies of new members of the West Virginia State Medical Association elected from January 1 through June 30, 1981:

Cabell

Jack M. Bernstein	Huntington
Robert L. Bradley	"
William C. Graham	"
Roberta S. Gray	Glenwood
Panayotis Ignatiadis	Huntington
James A. Kemp	"
Mysore G. Narayan	"
William Sivitz	"
Duane D. Webb	"

Eastern Panhandle

Norma Balacuit	Martinsburg
Thomas F. Crompton	"
George R. Friedman	"
James Doyle Helsley	Berkeley Springs
Mark E. Meany	Martinsburg
Keith A. Recht	"
George C. Soteropoulos	"

Fayette

Ernesto M. Navato	Fayetteville

Greenbrier Valley

Stephen L. Sebert	Lewisburg

Hancock

Gurdey S. Purewal	Weirton

Harrison

John Henthorne	Clarksburg
Leon R. Lapointe	"
Ronald C. Michels	"
Robert I. Mosenfelder	"

Jefferson

Jennifer H. Christian	Ranson
Jerome E. Kurent	"
William Smith Miller	"

Kanawha

B. H. Avashia	Charleston
Carmelita N. Bautista	"
Clinton A. Briley, Jr.	"
Jerill D. Cavender	"
June R. Chambers	"
Carl Ronald Duncan	"
Rosendo Y. Dy	"
Sami H. Farra	"
Michael O. Fidler	"
Chanda Jain	South Charleston
Steven J. Jubelirer	Charleston
James White Kessel	"
Ahmad M. Maraikayer	"
Isabel A Matunda	South Charleston
Abdolsamad Mossahebi	Charleston
Raheem Nader	"
David L. Namay	"
Lee L. Neilan	"

Logan

Riad S. Al-Asbahi	Logan
Emmanuel F. Hipolito, Jr.	Man
Adel Abdel W. Ibrahim	"
Merceditas Orquiola-Elizondo	Chapmanville
Jose G. Pritchard	Holden

McDowell

Rajaratnam Jeevananahan	Welch
Haresh Khatri	"
Tsuo-Pin Lin	"
Maheshkumara Patel	"
Sanga Tantulavanich	"

Mercer

Nasim Ahmed	Princeton
Nicholas Bello	Matoaka
Craig W. Brown	Princeton
David J. Larkin	Bluefield
Everett F. Magann	Princeton
Vijaykumar R. Phade	Bluefield

Mingo

Abdulrazzak Almonajim	South Williamson, Ky.
Pastor C. Gomez	Williamson
Andrew Hunter Henderson III	Turkey Creek, Ky.
James Arthur Henderson	" " "
Alfredo R. Soliva	Williamson
Bandith Suttiratana	"
Manolo Tampoya	"

Monongalia

Gregory S. Carter	Morgantown
William Koss	"
Chevuru V. Krishnarao	"
Evelyn W. Manetta	"
Leeman P. Maxwell	"
Gary T. Raflo	"
George W. Shehl	"
Seyed Asadollah Shohadai	"
Jamshid Tehranzadeh	"
Marian K. Thompson	"

Ohio

Michael W. Blatt	Wheeling
Peter V. Caruso	"
Ana Maria V. Domaoal	"
John R. King, Jr.	"
Matt L. Kirkland, Jr.	"
Otto J. N. Kunst	"
Edward Y. Lai	"
H. David Millit	"
John J. Templeton, Jr.	"
A. J. Vincent	Glen Dale

Parkersburg Academy

John D. Lyons	Parkersburg

Potomac Valley

Jung Fu Chen	Petersburg

Preston

James E. Goodwin	Glen Dale
Gregory N. Pinkerton	Eglon

Raleigh

Generoso Blando	Beckley
Marcia Ann Bohn	"
John J. Cannell	Flat Top
Fortunato Castro	Beckley
Carmelo J. Lopez	"

Summers

Eduardo L. Jimenez	Hinton

Tygart's Valley

Charles L. Arnett	Elkins
Ernest N. Hart, Jr.	"
David Cameron McClure	"
Mary Starr Schipper	"
Joseph A. Tavolacci	"

Wetzel

Palecanda P. Chengappa	New Martinsville

Student Members

Candance Ann Adkins	WVU, Morgantown
Harold E. Ayers, Jr.	MU, Huntington
Marsha Lee Bailey	" "
John Chris Baker	WVU, Morgantown
William G. Bell	" "
David A. Brosius	MU, Huntington
Mary Beth Butcher	" "
Timothy David Wade Canterbury	" "
Glenna A. Cather	WVU, Morgantown
Janet E. Cogar	" "
Steven W. Collins	" "
Ronald DeAndrade, Jr.	MU, Huntington
Melinda Jean Elliott	WVU, Morgantown
Roberta Elizabeth Galford	" "
Mark Greathouse	" "
C. Dwight Groves	MU, Huntington
Richard Mark Hatfield	" "
David H. Hauge	WVU, Morgantown
Carol Lynn Johnson	" "
Larry Michael Lantz	" "
Scott Allen McNamara	" "
Jeffrey Neal	" "
Patton VanMeter Nickell	" "
Mary Anne Pope	" "
Basil Lester Pugh	" "
Stephen Thomas Pyles	MU, Huntington
William Dale Ramsey	WVU, Morgantown
Ralph Ellsworth Rickel, Jr.	" "
Robin Rodeheaver	" "
Chad L. Rolfe	" "
Marvin Lynn Simons	" "
Thomas B. Styer	MU, Huntington
Susan A. Terry	" "
Frank J. Trupo	WVU, Morgantown
Henry D. Windler	" "
Jimmy V. Wolfe	MU, Huntington

AAFP Scientific Assembly September 21-24

The American Academy of Family Physicians will stage a national educational forum in family medicine September 21-24 at the Las Vegas Convention Center.

The scientific program will begin at 1 P. M. Monday, September 21, immediately following the close of the annual meeting of the AAFP's Congress of Delegates. The Congress, the AAFP's governing body, will meet September 19-21 at the Las Vegas Hilton.

Delegates of the West Virginia Chapter to the AAFP are Drs. Del Roy R. Davis of Kingwood and Joseph A. Smith of Dunbar.

Medical educators from around the country will provide the latest information on diagnosis, therapy and medical procedures in the full spectrum of clinical problems.

The lead-off speaker will be Academy member Edward N. Brandt, Jr., M. D., Assistant Secretary for Health of the U. S. Department of Health and Human Services.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal).

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

Sept. 11-12, Charleston, Allied Health Education Symposium — Directions for the Eighties

Sept. 25-26, Morgantown, WV Chapter, Am. College of Surgeons

Sept. 26, Morgantown, Stroke and Transient Ischemia Attacks

Oct. 10, Morgantown, Acute Bronchitis and Asthma

Oct. 15-16, Morgantown, 7th Annual Hal Wanger Family Practice Conference

Oct. 17, Morgantown, Orthopedics for the Family Practitioner

Oct. 31, Morgantown, Urinary Tract Infection, Prostatic Hyperplasia, Chronic Airway Obstruction

Nov. 6, Morgantown, Internal Medicine Day

Nov. 7, Morgantown, Congestive Heart Failure, Coronary Atherosclerosis, Angina Pectoris

Nov. 13-14, Morgantown, Sports Medicine Symposium

Nov. 14, Morgantown, Pneumonia; Diabetes Mellitus—Adult Onset; Noninfectious Gastroenteritis and Colitis

Dec. 5, Charleston, Arthritis Foundation—Scientific Meeting

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, Upshur-Buckhannon Middle School, 3rd Thursday, 7-9 P. M.—Sept. 17, "Trauma Management in Community ER," James White Cassel, M. D.

Oct. 15, "Management of Emergency Psychiatric Depression," Sid Lerfald, M. D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M.—Sept. 9, "Dermatology," Robert Point, M. D.

Oct. 14, "Clinical and Personal Management of Asthma," Dominic Gaziano, M. D.; Elizabeth Annie, R.N., and John Carlson.

Nov. 11, "Newer Developments in Health Supervision of Children, Including Immunization," Herbert Pomerance, M. D.

Dec. 9, "Guidelines and Protocols for Establishing a Prenatal Clinic in a Primary Care Center" (speakers to be announced).

Madison, Madison-Danville Junior High School, West Madison, 2nd Wednesday, 7-9 P. M.—Sept. 9, "Hyper-alimentation and Nutritional Support," Brittain McJunkin, M. D.

Oak Hill, Oak Hill High School (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M.—Sept. 22, "Hypertension," Stafford Warren, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 11 A. M.-1 P. M.—Sept. 16, "Clinical and Personal Management of Asthma," Harry K. Tweel, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M.—Sept. 23, "Clinical and Personal Management of Asthma," Bippin Avashia, M. D.; John Heavener, M.S.M.

Williamson, Williamson Junior High School, 1st Thursday, 6-8 P. M.—Sept. 3, "Allergy Update," Joseph Skaggs, M. D.

Specially Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Charleston, Holiday Inn Charleston House, 12:30-7:30 P. M., Sept. 30, "Anxiety: The Therapeutic Dilemma," Martin Kommor, M. D., Moderator. Co-sponsored by WVU Department of Behavioral Medicine. (Dinner provided free to participants by Abbott Laboratory.)

Charleston, WVU Educational Building, 12-5 P. M., Oct. 28, "Beyond the Physical Diagnosis: Behavioral Health in the Primary Care Setting," co-sponsored by West Virginia Department of Health. A statewide continuing education program for physicians and other health professionals practicing at the primary care level. Topics: "Adolescence," "Depression," and "Drug Use and Abuse."

Martinsburg, Old National Bank Building, King and Queen Streets, 7-9 P. M., Oct. 22, "Clinical and Personal Management of Asthma," N. LeRoy Lapp, M. D. Co-sponsored by American Lung Association of West Virginia.

Richwood, Sacred Heart Hospital, 7-9 P. M., Sept. 23, "Industrial Dermatitis," Steven Milroy, M. D. Co-sponsors: Sacred Heart Hospital, Nicholas County Board of Health and Summersville Memorial Hospital.

Spencer, Roane General Hospital, 12-2 P. M., Sept. 25, "Hypertension," Ross Patton, M. D., and Jan Chapin, R. N. Co-sponsors: West Virginia Department of Health, Roane General Hospital and Roane County Department of Health.

Wheeling, Vance Memorial Presbyterian Church, 905 National Road, 7-9 P. M., Sept. 10, "Clinical and Personal Management of Asthma," Joseph Skaggs, M. D.; Gail Zell Serdoz, R. N., and John Heavener, M. S. M. Co-sponsored by American Lung Association of West Virginia.

Wheeling, Wilson Lodge of Oglebay Park, 9 A. M.-5 P. M., Nov. 7, "Anxiety: The Therapeutic Dilemma," Martin Kommor, M. D., Moderator. Co-sponsored by WVU Department of Behavioral Medicine. (Lunch provided free to participants by Abbot Laboratory).

AMA House Approves Dues, Membership Changes

Here is a report of actions by the American Medical Association's House of Delegates at its Annual Meeting as provided by Drs. Frank J. Holroyd of Princeton, Richard E. Flood of Weirton, Jack Leckie of Huntington and Harry S. Weeks, Jr., of Wheeling, the State Medical Association's Delegates and Alternate Delegates.

With 283 delegates, this was the largest House in AMA's history. Five state societies received additional delegate seats due to membership increases.

The House postponed granting delegate seats to several additional specialty societies. The Board of Trustees was asked to review the issue and report back. A reference committee considering the matter noted that there were many objections to granting representation in the House to organizations of sub-specialies with overlapping memberships. There currently are 56 national specialty societies with representation in the House.

Reorganization and Dues Increase

A major report of the Board of Trustees calling for a reorganization of the AMA structure and staff and a $35 annual dues increase received the most attention. The House approved most of the Board's proposals and the dues for 1982 will be $285 for regular members. Dues for medical students and residents will remain at $15 and $35 respectively.

In adopting a new functional profile for the AMA, the House called for *representation* of the medical profession to be the number one priority for the Association. Other primary functions are:

—Providing information, both scientific and socio-economic;

—Establishing and maintaining standards of conduct and performance; and

—Sharing with other organizations the maintenance and implementation of educational standards.

In recognition of the special financial circumstances of new physicians and those in military service, the House adopted some dues incentives. It cited a need to encourage physicians to join and become involved in organized medicine early in their medical careers. Young physicians in their *first* year of practice now pay 50 per cent of the regular dues; and at the recent meeting the House voted to set the dues of physicians in their *second* year of practice at 75 per cent of regular

dues. Beginning in 1982, physicians in military service will pay two-thirds of regular dues.

Direct Membership

In a major decision with probable far-reaching implications for the strength and vitality of the AMA, the House changed the bylaws to establish a direct AMA membership option. The AMA will put its first emphasis on recruiting members in cooperation with state medical societies that join with the AMA in a coordinated marketing campaign.

The House was advised that although AMA membership had increased in absolute numbers, there still were 241,000 physicians who did not belong. Of these, 178,000 also did not belong to state or county medical societies.

In addition to this direct membership option, the House changed the bylaws so that direct members will be counted toward determining the number of delegates from each state society.

The AMA will bill all non-member physicians and medical students after the April 30 delinquency date each year. Lists of those physicians who apply for AMA direct membership will be sent for review to state medical associations before processing is completed. All objections to applicants for direct membership will be referred to the Judicial Council for prompt disposition. Accepted physicians and students will be urged to join state and county societies.

The House directed the Board of Trustees to submit a full review and reappraisal of the direct membership program after three years.

Competition Legislation

The House adopted a comprehensive report of the Board of Trustees pertaining to "pro-competition" national health insurance proposals under consideration by the Congress. The Board, with concurrence from the Council on Legislation and the Council on Medical Service, expressed some serious concerns about these bills and how these proposals would affect the way medicine will be practiced in the future.

The competition proposals would result in a shift in the way medical services are delivered. Currently, medical care is delivered through a decentralized market. These proposals assume that, given a cost incentive, patients will accept responsibility for first-dollar health care costs and choose a health insurance plan with fewer benefits. Consequently, it is assumed that the patient will be motivated to use fewer health care services.

The AMA believes that the likely result will be market concentration. The report said "sponsors of insurance plans, particularly under the more comprehensive competition models, would be expected to exercise their purchasing power to control selection of providers and facilities through special arrangements with them."

The House concurred with the Board's conclusion that the advocates of competition assume patients are preoccupied with price, and that assumption is yet to be demonstrated fully. Accessibility, reliability and quality are just as important—and maybe more so—than price, the House emphasized.

Other Major Actions

In other actions, the House voted to:

—Request a Board re-evaluation of Association policies on health manpower and their relevance to current developments in physician supply, roles of allied health professions, medical education and the health services market;

—Support the elimination of government funds for new start-ups of Health Maintenance Organizations and for the termination of funds for other HMOs after completion of the current funding cycle;

—Endorse the concept of equal rights for men and women, but not the Equal Rights Amendment;

—Recommend to hospital staffs that admission histories and physicals be performed only by physicians;

—Urge the Food and Drug Administration to accelerate review of drugs on its "lacking evidence of effectiveness list;"

—Urge the Federal Aviation Agency to study medical emergencies on commercial planes and how they were treated with currently-required medical kits;

—Support a bill that would place a moratorium on the Federal Trade Commission's activities involving professionals;

—Oppose state laws making a physician's licensure contingent upon providing services to Medicaid beneficiaries or any other specified category of patients; and

—Have the AMA develop an educational program dealing with child molestation, incest and exploitation of children.

AMA House meetings provide a unique educational opportunity for participation in discussions centered about medical and patient care issues. Any member of the Association may present testimony at reference committee hearings

and, of course, corridor discussions on the issues provide ample opportunities to get personal views across.

If physicians can't attend House meetings, they still can be represented through their delegates. They should let their delegations know their feelings. A physician also can prepare a resolution and request that it be submitted to the House.

State's New Hemophilia Program Started

The state's new hemophilia program will be administered by the State Director of Health through the Division of Community Health Nursing in the Office of Community Health.

This was announced recently by State Health Director L. Clark Hansbarger, M. D.

Anyone suffering from a coagulation factor deficiency should communicate, either personally or through their own physician, with the Division of Community Health Nursing in the Office of Community Health Services, State Department of Health, 1800 Washington Street, East, Charleston, 25305 (telephone 304-348-8870).

An Advisory Committee, made up of patients and their relatives, physicians knowledgeable about hemophilia, and representatives of agencies providing care for hemophilia has been appointed to advise the Director.

A roster is being drawn up of all persons known to suffer from clotting factor deficiencies. Any resident hemophiliac may register in the program; the department wishes to draw up a complete list of such persons as soon as possible.

The recently-enacted state legislation provides for the establishment and maintenance of a state program for the care, treatment and assistance of all persons in the state suffering from hemophilia.

Doctor Williams Honored

Dr. Leah Mildred ("Dr. Willie") Williams, long-time Charles Town physician, recently was named "Jefferson County Citizen of the Year" during the annual Chamber of Commerce awards banquet in Harpers Ferry.

Doctor Williams began practicing medicine in Charles Town in 1949, serving as Jefferson Memorial Hospital Chief of Staff four times and later as county coroner.

State Medical Woman's Group To Meet September 12

The West Virginia Branch of the American Medical Woman's Association will hold its fall meeting on September 12 at Blackwater Falls Lodge, it was announced by Dr. Florence K. Hoback of Huntington, President.

Speaking during the 2 P.M. meeting will be Drs. Mildred Mitchell Bateman and Bruce S. Chertow, both of Huntington.

Doctor Bateman is Chairperson of the Department of Psychiatry at Marshall University School of Medicine, and Doctor Chertow is Professor of Medicine at MU.

Doctor Bateman's subject will be endocrine imbalances that cause psychiatric problems, while Doctor Chertow will present an overview on endocrine pathology.

Malpractice In Occupational Medicine Article Topic

Physicians specializing in occupational medicine and others who see patients referred by their patients' employers might be interested in an article appearing in the July, 1981, issue of *Trial* magazine.

This was noted by Robert F. Bible, Staff Counsel for the State Medical Association.

The article, "The Company Doctor's Responsibility to the Employee," essentially outlines methods of bringing malpractice actions against "company doctors," Bible said.

The State Medical Association Headquarters will make arrangements to acquire copies of the article for interested physicians.

Pediatrics Academy Meeting Set For New Orleans

About 5,000 physicians and other professionals interested in children's health care are expected to attend the 1981 Annual Meeting of the American Academy of Pediatrics (AAP), which will be held October 31-November 5 in New Orleans.

Topics to be discussed at the meeting reflect pediatricians' role as the primary health care providers for young people from infancy through adolescence, including subjects such as ethical issues in genetic screening and in adolescent nutrition problems. Examples of other meeting topics include the failure-to-thrive syndrome and using hypnosis in clinical pediatric practice.

Poison Control Developing Hospital Network

West Virginia's poison control system is developing a statewide network of affiliated hospitals to serve as community education and treatment centers for coping with accidental poisoning.

Each will be linked to the state Poison Control Center in Charleston by telecopier to its emergency room, and each will serve as a center for educating the public about poison control and treatment.

The statewide center was established at the Charleston Division of the West Virginia University Medical Center earlier this year through financial assistance from the State Health Department's Office of Emergency Medical Services. It consolidated a number of regional systems.

A single toll-free number, 1-800-642-3625, can be called from anywhere in West Virginia to report accidental poisonings and receive guidance on treatment or referral to a hospital that can best manage the case.

Kathryn F. Sensabaugh, Interim Director of the state system, said hospitals designated as affiliated centers include Camden-Clark and St. Joseph's, both in Parkersburg, St. Mary's in Huntington, and Charleston Area Medical Center.

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T. R. Millar, M.D.
Justus Pickett, M.D.
Malcolm Pope, Ph. D.

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Medical Meetings

Sept 12—WV Branch, Am. Medical Woman's Assn., Blackwater Falls.

Sept. 12-15—Am. College of Radiology, Las Vegas.

Sept. 14-15—Am. College of Nutrition, Bethesda, Md.

Sept. 14-16—Am. Neurological Assn., San Francisco.

Sept. 14-17—Am. College of Emergency Physicians, New Orleans.

Sept. 16—MU Surgical Symposium, Huntington

Sept. 18-19—WV Sections, Am. College of Obstetricians & Gynecologists, & Nurses Assn. of ACOG, Huntington.

Sept. 20-24—Ky. Med. Assn., Louisville.

Sept. 21-24—Am. Academy of Family Physicians, Las Vegas.

Oct. 1-4—ASIM, New York City.

Oct. 3-11—Am. Assn. of Blood Banks, Chicago.

Oct. 11-16—Am. College of Surgeons, San Francisco.

Oct. 17-21—Am. Society of Anesthesiologists, New Orleans.

Oct. 20-24—Ky. Med. Assn., Louisville.

Oct. 21-25—Med. Society of Virginia, Norfolk.

Oct. 23-26—Indiana State Med. Assn., Indianapolis.

Oct. 25-29—Am. College of Chest Physicians, San Francisco.

Oct. 26-28—Am. College of Gastroenterology, Bar Harbour, Fla.

Oct. 30-31—Am. Academy of Allergy, Southeast Region (Allergy & Immunology for the Clinician), Hilton Head Island, S. C.

Oct. 31-Nov. 5—Am. Academy of Pediatrics, New Orleans.

Nov. 3-9—Am. Med. Women's Assn., Los Angeles.

Nov. 15-20—International College of Surgeons, Coronado, Calif.

Nov. 16-19—Am. Heart Assn., Dallas.

Dec. 4-5—Am. College of Chemosurgery, San Francisco.

Dec. 5-10—Am. Academy of Dermatology, San Francisco.

1982

Jan. 22-24—15th Mid-Winter Clinical Conference, Charleston.

Feb. 3-7—Am. College of Psychiatrists, Orlando.

Feb. 25-28—AMA National Leadership Conference, Chicago.

March 5-10—Am. Society of Abdominal Surgeons, Las Vegas.

April 22-23—WV Chapter, Am. Academy of Pediatrics, Morgantown.

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WVU Medical Center
–News–

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

WVU Grad On Medical Team In Reagan Wounding

William A. Knaus is one of the physicians who cared for President Ronald Reagan after he was wounded March 30, he's the author of a highly praised new book about Russian medicine, and he's a medical graduate of WVU.

As Co-Director of the intensive care unit at George Washington University Medical Center, Doctor Knaus was intimately involved in medical care provided for the President and Press Secretary James Brady following their surgery.

About the same time, Everest House was publishing his *Inside Russian Medicine*, subtitled "An American doctor's firsthand report." It is based on a year he spent practicing medicine in Russia as physician for a 22-member American group handling an "Outdoor Recreation — USA" exhibit for the U.S. Information Agency.

Doctor Knaus is only nine years out of the WVU School of Medicine and, in a telephone interview, he praised it as a school "that is really oriented around the student."

"Especially after observing medical education at a number of other centers, I can't say enough about WVU. It's an excellent place to receive a medical education and offers valuable perspectives just because of that student orientation," he said.

Doctor Knaus grew up in the Bethel Park area of Pittsburgh, was graduated from Widener College near Philadelphia and entered the WVU School of Medicine in 1968. He was an outstanding student who, in the words of a former teacher, "challenged us all to the maximum."

Doctor Knaus was on duty in the intensive care unit at the George Washington University Medical Center when President Reagan and his companions were brought in after the assassination attempt.

"We took care of the President and Jim Brady after their surgery. The President stayed in the intensive care unit only one day, but Mr. Brady was there for a week.

"It was a very satisfying professional experience. A great deal of the credit goes to the President's physician, Daniel Ruge. We conferred with him and he told us to treat Mr. Reagan like any other patient.

"We didn't use a VIP approach. From the time he arrived, interns and residents were involved in his care and assisted in the surgery. We kept things as routine as possible.

"The President was a very easy patient to care for, the kind of person who does everything needed to take care of himself and help himself get better. And, of course, he had to be in very good condition to do as well as he did. He was out of the ICU within 24 hours after major chest surgery, a real tribute to the excellent physical shape he was in."

Four New Psychiatrists Join Department

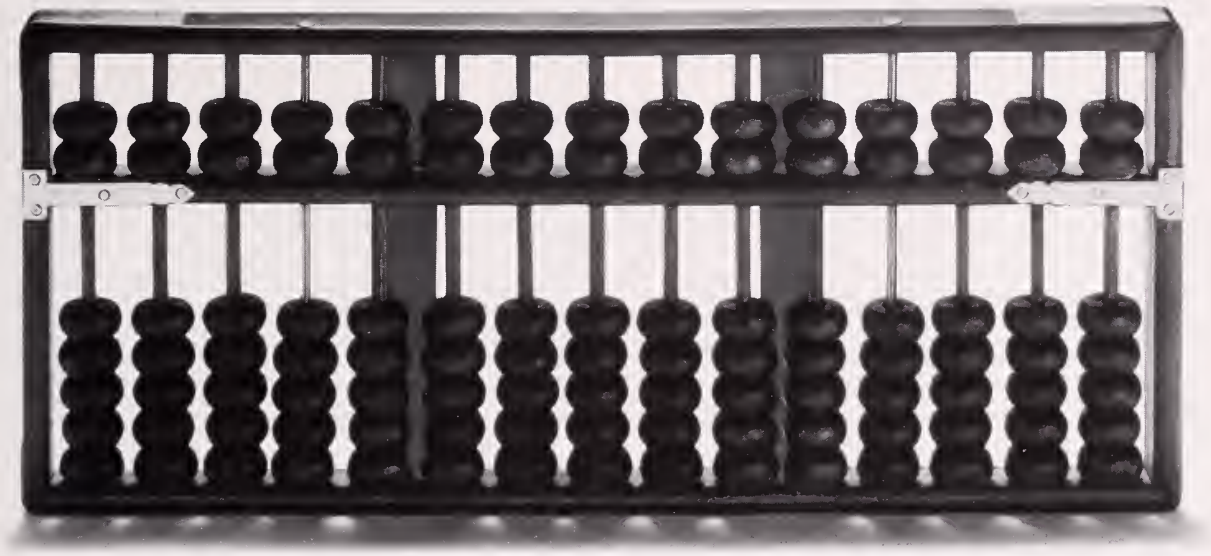
One associate and three assistant professors have joined the faculty of the Department of Behavioral Medicine and Psychiatry.

Associate Professor Tom H. Pepper, M. D., is a graduate of Baylor University and its College of Medicine. He comes to WVU from Austin, Texas.

Bharati S. Desai, M. D., is a graduate of Baroda Medical College in India where she also received a diploma in ophthalmology. She took her residency in psychiatry at Beth Israel Medical Center in New York City.

Steven A. King, M. D., received his medical degree from the University of Maryland where he also served his residency. For the past year, he has been in private practice in Baltimore.

Timothy G. Roberts, M. D., is a graduate of Eastern Illinois University and received his medical degree from Southern Illinois University. He completed a residency in psychiatry and a fellowship in child psychiatry at the Charleston Division of the WVU Medical Center.



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Third-Party News, Views and Program Concerns

Actions By FTC Crippling, AMA Tells Committee

Federal Trade Commission actions have crippled the ability of the professions to serve the best interests of the public and have infringed upon state laws, the American Medical Association recently told a Senate Commerce subcommittee. Lowell H. Steen, M. D., a member of the Board of Trustees, pointed out that the AMA and other medical societies have had to "divert scarce resources from socially beneficial activities to defend against unfounded FTC charges."

While the AMA does not oppose application of antitrust laws to the professions, Doctor Steen said, it does believe that the FTC should not be involved in regulating the professions. He stressed that private, state, and Justice Department actions under the Sherman Act are "more than adequate" and are generally fairer and more efficient than FTC proceedings. He noted that Congress rejected the FTC's request for jurisdiction over not-for-profit entities in 1977 and that the FTC "has chosen to ignore this limitation."

Doctor Steen said the AMA supports a bill (HR 3722) that would place a moratorium on FTC actions involving state-regulated professions, and he submitted to the subcommittee a series of proposed AMA amendments to the FTC Act. The AMA amendments would affirm the lack of FTC jurisdiction over state-regulated professions; preclude preemption of state laws by the FTC; provide relief from excessive demands of the agency for information; circumscribe the FTC's overly-broad subpoena power; clarify the meaning of "unfair competition;" provide defendants protections afforded through a judicial proceeding; and repeal the "intervenor program" under which the FTC funds individuals and organizations pressing cases before the agency.

Citing the FTC's six-year-long action against the AMA's ethical precepts on advertising, Doctor Steen said there was "continuing disdain for responsible professional self-regulation and for the interests of the patients." One of the AMA's main concerns is the "basic unfairness one finds when involved in an FTC action, where the commission acts as an inquisitor, prosecutor, judge, and jury," he said.

Congress Reaches Compromise In Medicaid Cost Cuts

After a frantic burst of activity, Congress settled the budget reconciliation bill, voted on tax cuts, and departed for a month-long August vacation with much of the legislative work for the session behind it.

Medicaid, the American Medical Association reports, will not be cut as deeply as the Administration wished, and the block grant proposal was softened considerably under the budget compromise agreed to by the House-Senate conferees.

The flat, five per-cent cap that the Administration wanted to impose on increased federal outlays for Medicaid next year was thrown out. The Senate had voted a nine per-cent cap, but the House had approved a formula decreasing federal payments over the next three years by three per cent, two per cent and one per cent.

The conference compromise reduced projected costs by three per cent, four per cent the following fiscal year, and 4.5 per cent the next year. Savings are estimated to be about $1 billion a year, about what the Administration sought.

A controversial Senate plan to drop the minimum federal contribution to states to 40 per cent from the present 50 per cent was a casualty of the conference. A dozen larger states would have been especially hard hit, with no effect on West Virginia.

for Knotts in the night

Prescribe new formula

Quinamm*

(quinine sulfate tablets)

each tablet contains quinine sulfate 260 mg

Specific therapy for painful night leg cramps

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Nocturnal recumbency leg muscle cramping is frequently an unwelcome bedfellow for many patients—especially those with arthritis, diabetes, or peripheral vascular disease... consider Quinamm... simple, convenient dosage—usually just one tablet at bedtime... can provide restful, welcome sleep without night leg cramps.

Quinamm*
(quinine sulfate tablets)

CAUTION Federal law prohibits dispensing without prescription

BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman. Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g.) for attempted abortion. In about half of these reports the malformation was deafness related to auditory nerve hypoplasia. Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes. In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys. Quinamm is contraindicated in women who are or may become pregnant. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus.

Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use. Recovery usually occurs following withdrawal of the medication and appropriate therapy.

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever.

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism. Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision; however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin.

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine. Quinamm should be stopped immediately if evidence of hemolysis appears.

If symptoms occur, drug should be discontinued and supportive measures instituted. In case of overdosage, see OVERDOSAGE section of prescribing information.

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS.) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine have been taken. Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form. Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy.

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine. (See Drug Interactions.)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration. Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly.

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine.

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties.

Urinary alkalizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity.

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used.

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0.1%) to rats for periods up to 20 months showed no evidence of neoplastic changes.

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test. Intraperitoneal injections (0.5 mM/kg.) were given twice, 24 hours apart. Direct *Salmonella typhimurium* tests were negative; when mammalian liver homogenate was added, positive results were found.

No information relating to the effect of quinine upon fertility in animal or in man has been found.

Pregnancy

Category X. See CONTRAINDICATIONS.

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present. Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown. Quinine in toxic amounts has been associated with abortion. Whether this action is always due to direct effect on the uterus is questionable.

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts).

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage. (Individual or multiple symptoms may represent cinchonism or hypersensitivity.)

Hematologic: acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoprothrombinemia.

CNS: visual disturbances, including blurred vision with scotomata, photophobia, diplopia, diminished visual fields, and disturbed color vision; tinnitus, deafness and vertigo, headache, nausea, vomiting, fever, apprehension, restlessness, confusion, and syncope.

Dermatologic allergic: cutaneous rashes (urticarial, the most frequent type of allergic reaction, papular or scarlatinal); pruritus, flushing of the skin, sweating, occasional edema of the face.

Respiratory: asthmatic symptoms.

Cardiovascular: anginal symptoms.

Gastrointestinal: nausea and vomiting (may be CNS-related), epigastric pain.

DRUG ABUSE AND DEPENDENCE

Tolerance, abuse, or dependence with Quinamm has not been reported.

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose.

DOSAGE AND ADMINISTRATION

1 tablet upon retiring. If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring.

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed.

Product Information as of October, 1980

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Cayey, Puerto Rico 00633

Direct Medical Inquiries to

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Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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Obituaries

BUFORD W. McNEER, M. D.

Dr. Buford W. McNeer, Hinton family physician, died on July 18 at his summer home in nearby Forest Hill. He was 66.

Doctor McNeer was a former member of the West Virginia State Medical Association's Council and was a past Chairman of the Association's Rehabilitation Committee. At the time of his death, he was Chairman of the Committee on Military Medical Affairs.

Born in Forest Hill, he received his early education in Roanoke, Virginia, where he completed high school and attended Roanoke College in nearby Salem.

He returned to Hinton in 1945 to practice medicine with his father, the late Frank L. McNeer, M. D., who died in 1949.

Doctor McNeer was Medical Director and former Chief of Staff at Summers County Hospital in Hinton.

He received a B. S. degree from West Virginia University, his M. D. degree in 1939 from the Medical College of Virginia, and interned at Charleston General Hospital.

Doctor McNeer was a Diplomate of the American Board of Family Practice; a Fellow of the American College of Family Physicians; a member of the West Virginia Chapter, American Academy of Family Physicians; a Fellow of the West Virginia Academy of Ophthalmology and Otolaryngology, and a member of the American Association of Ophthalmology and Otolaryngology.

He also was a member and Past President of the Summers County Medical Society, and a member of the West Virginia State Medical Association and American Medical Association.

Doctor McNeer served in China during World War II and was awarded the Bronze Star by the United States Army and the Cloud and Banner by the Chinese Nationalist government. Active in the Army reserve, he retired with the rank of Colonel in 1975.

He was a member of the Ascension Episcopal Church and served as church organist.

Surviving are the wife and one son, Michael D. McNeer, M. D., of Hinton.

CYCLAPEN®-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae*.*
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, non-penicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are excreted, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS.) Other less frequent adverse reactions which may occur, and are reported with other penicillins, are: anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia, and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy, generally continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure. Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight 20 kg (44 lbs): 125 mg q.i.d. body weight 20 kg (44 lbs): 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.†	50 to 100 mg/kg/day
Skin & Skin Structures	250 mg to 500 mg q.i.d.	50 to 100 mg/kg/day
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
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Half the dose is absorbed in 9 minutes!

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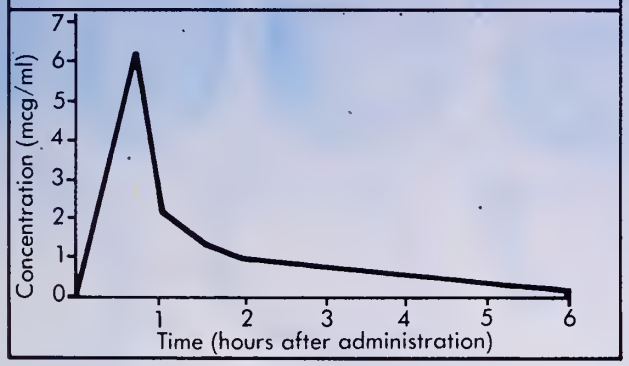

- Rapid, virtually complete absorption from GI tract
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*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

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(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

more than just spectrum

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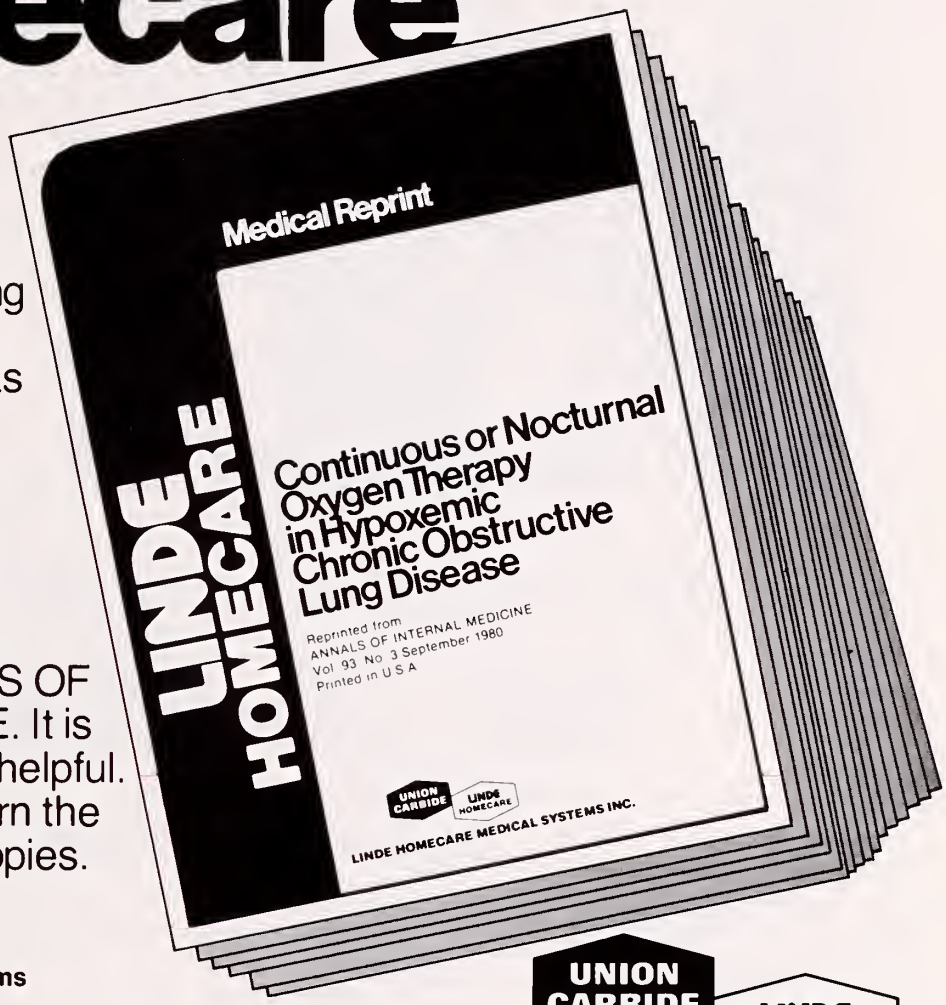

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I looked up and there was Jim watching me through the window.

Looking at tomorrow through the snow.

Everyone liked Jim Davis. He was a happy-go-lucky guy. His favorite saying was, "Live today, tomorrow never comes."

He lived next door and we worked in the same office. Our lifestyles were very close. But Jim always managed to spend that "little extra" he should've been saving.

I remember the morning he roared into the driveway with a brand-new sports car.

"Hey, Jack, grab a look at this set of wheels," he shouted as soon as he could crawl out of the cockpit. "Cost me an arm and a leg but it'll do 150."

I had to ask it: "Where?"

He looked as though the thought had never occurred to him.

I had tried many times to get Jim to join the Payroll Savings Plan at work and buy U.S. Savings Bonds for the future, but he never quite got around to it.

Then a few days ago, I was buying some tropical clothes. I looked up and there was Jim watching me through the window. He came in laughing. "Summer clothes? You're rushing the season, buddy; there's a big blizzard outside."

"Just getting some new duds for the land of sunshine," I said. "I finally decided to buy that condominium in Hawaii. Great deal. We use it for our winter vacations and rent it out the rest of the year."

"How did you ever save enough for the down payment? I know I couldn't come up with it."

"Well, I don't miss that "little extra" I've been putting away for Savings Bonds. And you wouldn't either. But *THAT'S* what makes the difference. It adds up."

It was snowing again the morning we left on our Hawaiian vacation. As we pulled out of our driveway, Jim stopped shoveling his sidewalk and waved. Leaning on his snow shovel he looked like a man who might be seeing tomorrow at last.

I looked back over my shoulder. "Well, better late than never," I said.

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WANTED—Mountaineer Family Health Plan, a pre-paid primary care program needs a general/family practitioner or internist for ambulatory patient care. Licensure in West Virginia required. Financial arrangements are negotiable. Call or write Douglas E. Tolbert, Executive Director, 228 Mellon Street, Beckley, WV 25801. Telephone: (304) 252-8551.

PHYSICIAN WANTED—An experienced practitioner to add to and work with an established group in Charleston. Excellent working conditions with regular hours and minimal night work. Liberal vacation, sick leave and holiday program. Pension plan, Social Security, and professional liability insurance coverage. Apply Charles E. Staats, M. D., 123 West Washington Street, Charleston, WV 25302 —Telephone: (304) 346-0381.

FAMILY PRACTICE OPENINGS — Pendleton County offers the rural medical practice challenge you are seeking. Located in the picturesque Eastern Panhandle town of Franklin are a group of active and interested businessmen and citizens committed to recruiting and financially supporting the establishment of new practices. This opportunity is worth exploring! Contact George I. Sponaugle, President of Pendleton Industries, Franklin, WV 26807. Telephone: (304) 358-2337.

PSYCHIATRIST WANTED—To fulfill the critical need in West Virginia Mental Institutions. Qualification: Board eligibility, with a desire to become Board Certified. MUST BE DEDICATED, ability to take the initiative, be productive, and work harmoniously with all personnel. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

WANTED—Physician to fulfill the critical needs in West Virginia's State Institutions. Qualification: A permanent license to practice medicine in West Virginia and three years of full-time paid experience. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

WANTED—A physician for the twin towns of Harpers Ferry and Bolivar, West Virginia—about 8 miles from Charles Town, where there is a hospital. Serving a population of 1500. Twin towns located in scenic mountain area, good fishing and Harpers Ferry National Park—approximately 1½ hours' drive from Washington, D. C. Contact Mr. Reid V. Geronimo, President Bolivar Civic Association, Route 1, Box 5, Harpers Ferry, WV 25425. Telephone: (304) 535-6528.

EMERGENCY ROOM PHYSICIAN — Immediate opening for an emergency room physician for 11 year old modern 80 bed hospital, centrally located between Parkersburg and Charleston, West Virginia. Contact David G. Graham, Administrator, Roane General Hospital, 200 Hospital Drive, Spencer, WV 25276. Telephone: (304) 927-4444.

EMERGENCY ROOM PHYSICIAN—Immediate opening for full-time career-oriented Emergency Physician needed for 250 bed, newly built Bluefield Community Hospital, to join the established Emergency Medical Group, Inc. Flexible schedule, salary negotiable, group offers pension plan, life and disability insurance, medical and liability insurance, vacation and educational benefits. Please contact Surrinder K. Chopra, M.D., Chief, Emergency Medicine, Bluefield Community Hospital, Bluefield, WV 24701. Telephone: (304) 327-2511.

WANTED—Young physicians for growing town with diversified industry. Major coal expansion. West Virginia Wesleyan College. Good place to live. Town of over 7,000. Rural setting. Pleasant surroundings easily accessible to multiple recreation areas. Modern hospital. Cooperative medical staff. Openings for several family practitioners preferrably interested in obstetrics; pediatrician and Ob-Gyn specialist. Contact Joseph B. Reed, M.D., 93 West Main Street, Buckhannon, WV 26201. Telephone: (304) 472-6041.

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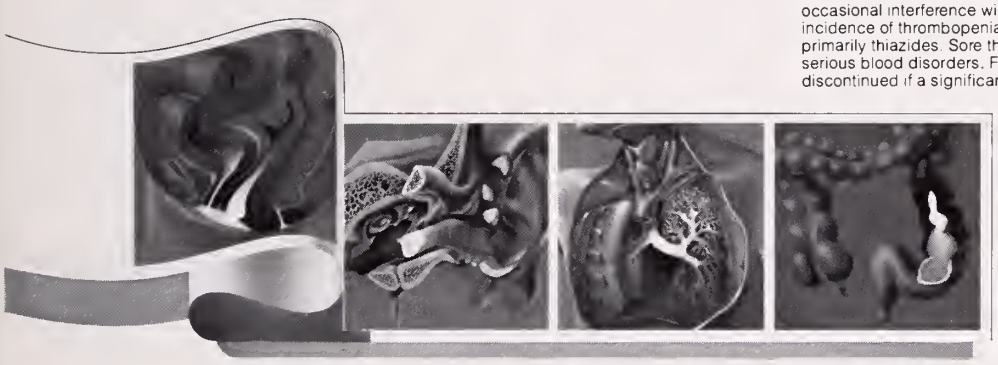
(trimethoprim and sulfamethoxazole)
succeeds

Bactrim is useful for the following infections when due to susceptible strains of indicated organisms (see indications section in summary of product information):

Expanding its usefulness in antimicrobial therapy



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a continuing record of high clinical effectiveness against common uropathogens

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effective against both major otic pathogens...with *b.i.d.* convenience

in acute exacerbations of chronic bronchitis in adults...
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in shigellosis...
faster relief of diarrhea than with ampicillin[2]

Before prescribing, please consult complete product information, a summary of which follows:

Indications and Usage: For the treatment of urinary tract infections due to susceptible strains of the following organisms: *Escherichia coli, Klebsiella-Enterobacter, Proteus mirabilis, Proteus vulgaris, Proteus morganii.* It is recommended that initial episodes of uncomplicated urinary tract infections be treated with a single effective antibacterial agent rather than the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For acute otitis media in children due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over other antimicrobials. Limited clinical information presently available on effectiveness of treatment of otitis media with Bactrim when infection is due to ampicillin-resistant *Haemophilus influenzae.* To date, there are limited data on the safety of repeated use of Bactrim in children under two years of age. Bactrim is not indicated for prophylactic or prolonged administration in otitis media at any age.

For acute exacerbations of chronic bronchitis in adults due to susceptible strains of *Haemophilus influenzae* or *Streptococcus pneumoniae* when in physician's judgment it offers an advantage over a single antimicrobial agent.

For enteritis due to susceptible strains of *Shigella flexneri* and *Shigella sonnei* when antibacterial therapy is indicated.

Also for the treatment of documented *Pneumocystis carinii* pneumonitis. To date, this drug has been tested only in patients 9 months to 16 years of age who were immunosuppressed by cancer therapy.

Contraindications: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precautions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

Pregnancy: Teratogenic Effects: Pregnancy Category C. Because trimethoprim and sulfamethoxazole may interfere with folic acid metabolism, use during pregnancy only if potential benefits justify the potential risk to the fetus.

Adverse Reactions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommended for infants less than two months of age.

URINARY TRACT INFECTIONS AND SHIGELLOSIS IN ADULTS AND CHILDREN, AND ACUTE OTITIS MEDIA IN CHILDREN:

Adults: Usual adult dosage for urinary tract infections—1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 10-14 days. Use identical daily dosage for 5 days for shigellosis.

Children: Recommended dosage for children with urinary tract infections or acute otitis media—8 mg/kg trimethoprim and 40 mg/kg sulfamethoxazole per 24 hours, in two divided doses for 10 days. Use identical daily dosage for 5 days for shigellosis.

For patients with renal impairment: Use recommended dosage regimen when creatinine clearance is above 30 ml/min. If creatinine clearance is between 15 and 30 ml/min, use one-half the usual regimen. Bactrim is not recommended if creatinine clearance is below 15 ml/min.

ACUTE EXACERBATIONS OF CHRONIC BRONCHITIS IN ADULTS:

Usual adult dosage: 1 DS tablet (double strength), 2 tablets (single strength) or 4 teasp. (20 ml) b.i.d. for 14 days.

PNEUMOCYSTIS CARINII PNEUMONITIS:

Recommended dosage: 20 mg/kg trimethoprim and 100 mg/kg sulfamethoxazole per 24 hours in equal doses every 6 hours for 14 days. See complete product information for suggested children's dosage table.

Supplied: *Double Strength (DS) tablets,* each containing 160 mg trimethoprim and 800 mg sulfamethoxazole, bottles of 100; Tel-E-Dose® packages of 100; Prescription Paks of 20 and 28. *Tablets,* each containing 80 mg trimethoprim and 400 mg sulfamethoxazole—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 40. *Pediatric Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); cherry-flavored—bottles of 100 ml and 16 oz (1 pint). *Suspension,* containing 40 mg trimethoprim and 200 mg sulfamethoxazole per teaspoonful (5 ml); fruit-licorice flavored—bottles of 16 oz (1 pint).

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1. Rubin RH, Swartz MN: *N Engl J Med 303* 426-432, Aug 21, 1980. 2. Data on file, Medical Department, Hoffmann-La Roche Inc.

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160 mg trimethoprim and 800 mg sulfamethoxazole

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Please see previous page for summary of product information.

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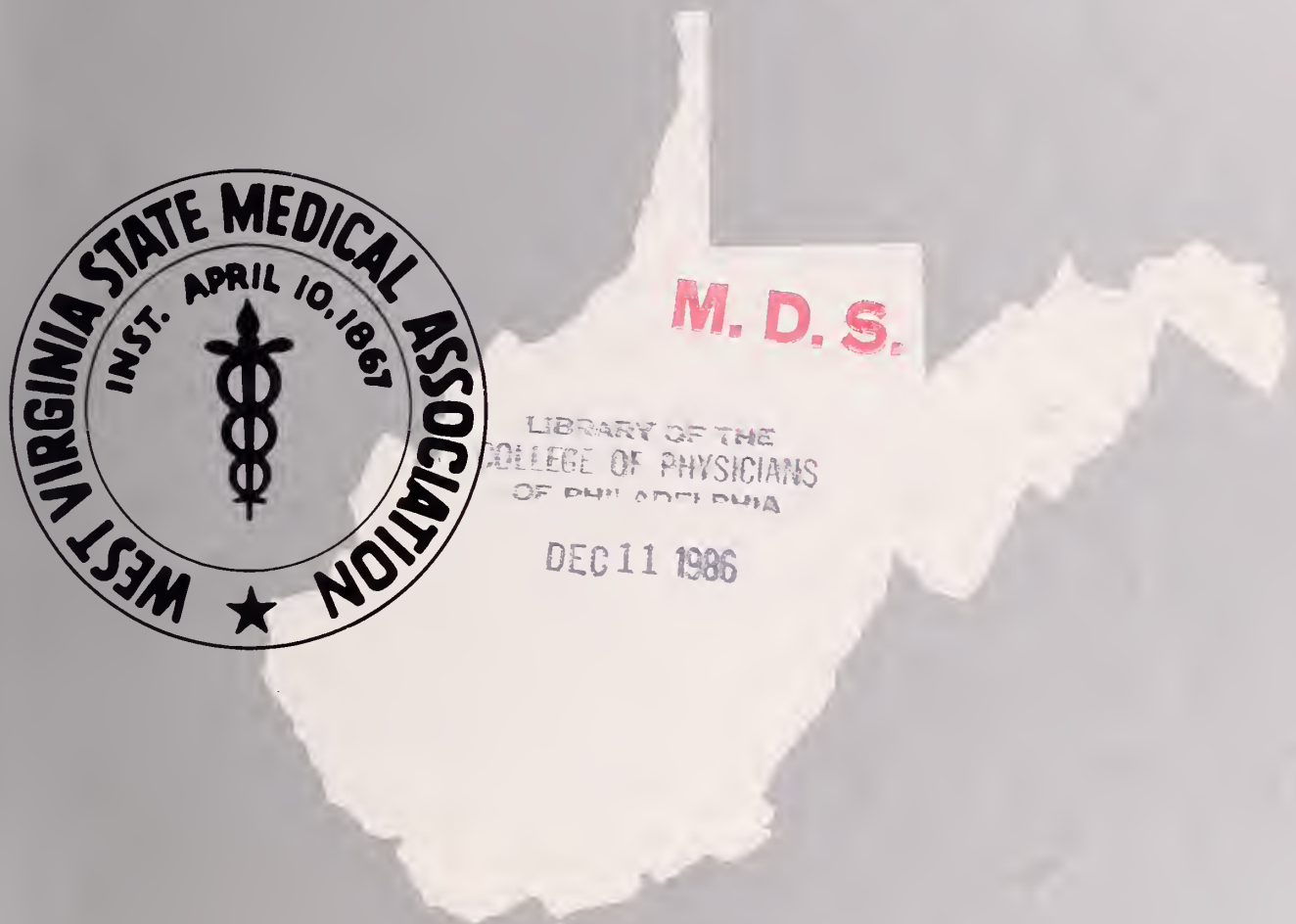

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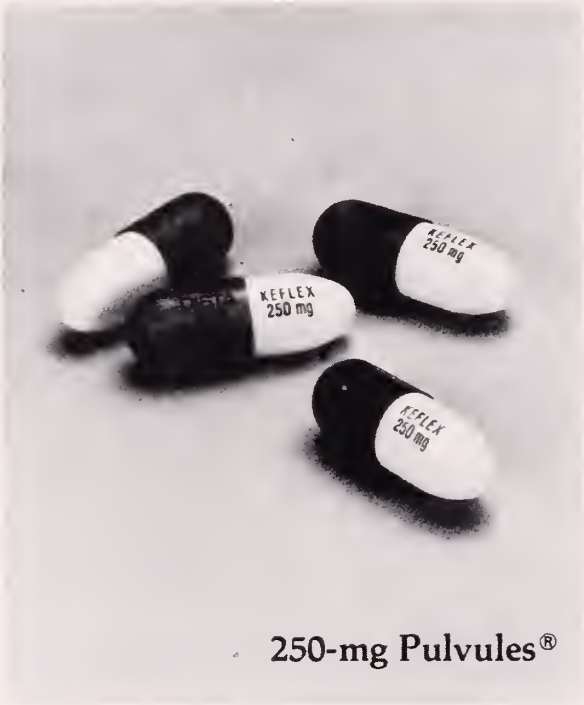

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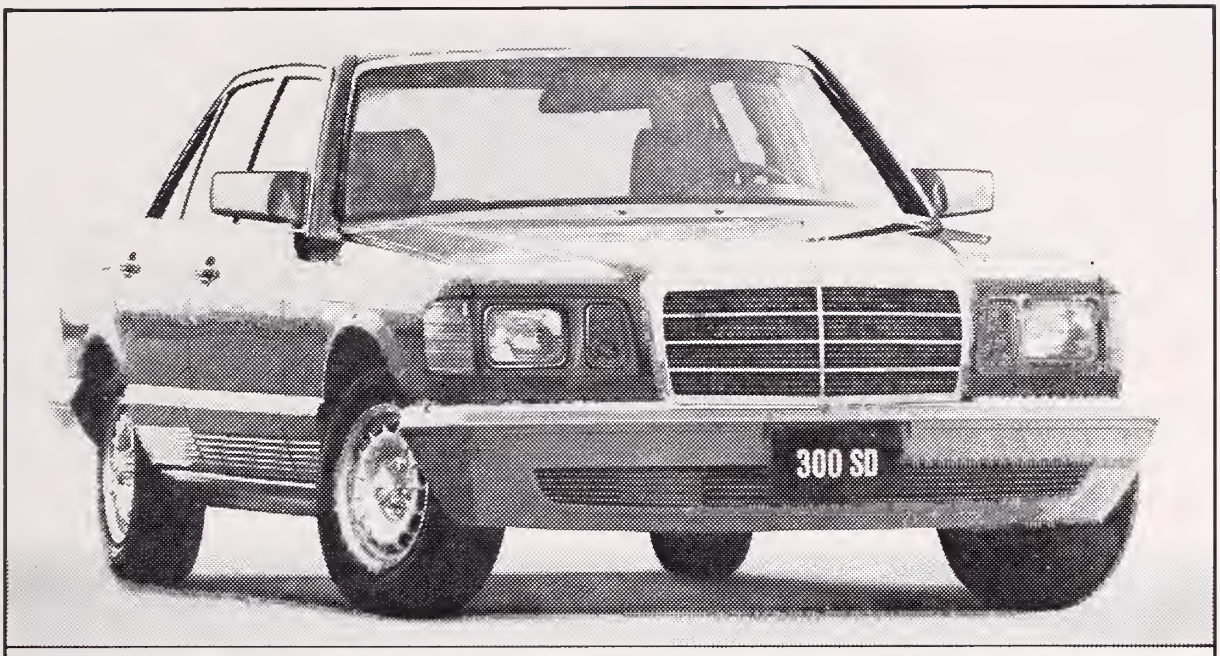

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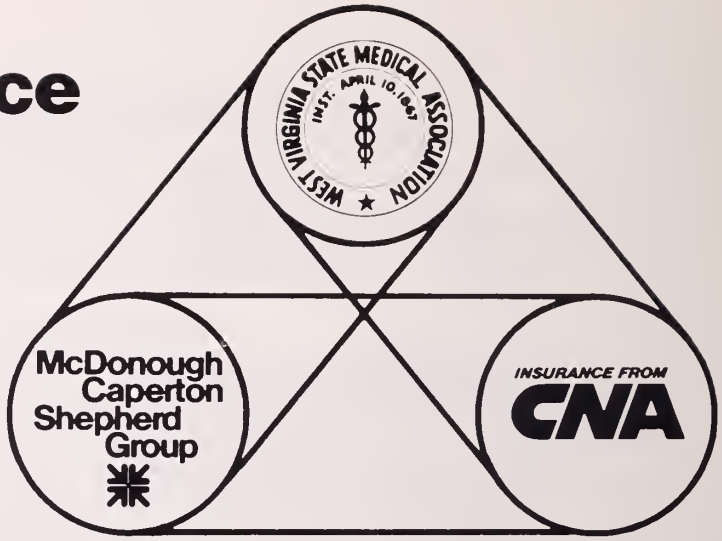

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Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

*__INDICATIONS__: Based on a review of this drug by the National Academy of Sciences—National Research Council and or other information, FDA has classified the indications as follows
"Possibly" effective for the treatment of pain accompanied by tension and or anxiety in patients with musculoskeletal disease or tension headache
Final classification of the less-than-effective indications requires further investigation
The effectiveness of Equagesic in long-term use, i.e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate
WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g, alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures
Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination
USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug. Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.
Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under
PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced. If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery
Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies. In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given. Should respiration become very shallow and slow CNS stimulants, e g, caffeine, Metrazol, or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels.
ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness.
A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions
Mild reactions are characterized by an itchy urticanal or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported
More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted
Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug
Impairment of accommodation and visual acuity has been reported rarely
OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions
DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

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Philadelphia, PA 19101

for mild to moderate pain

Wygesic®IV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary
INDICATION: For the relief of mild-to-moderate pain
CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen
WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol tranquilizers, sedative-hypnotics or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts as well as misuse of tranquilizers, alcohol or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**)
DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine s although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine
USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks e g driving a car or operating machinery Patients should be cautioned accordingly
USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore propoxyphene should not be used in pregnant women unless in the judgement of the physician the potential benefits outweigh the possible hazards
USAGE IN CHILDREN Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group
PRECAUTIONS: Confusion, anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol
ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation nausea and vomiting These seem more prominent in ambulatory than in nonambulatory patients some of these reactions may be alleviated if the patient lies down Other adverse reactions include constipation abdominal pain, skin rashes, light-headedness headache weakness euphoria, dysphoria, and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported
DRUG INTERACTIONS: Propoxyphene in combination with alcohol tranquilizers, sedative-hypnotics and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine
MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma pupillary constriction and circulatory collapse In addition to these characteristics which are reversed by narcotic antagonists such as naloxone there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported and apnea cardiac arrest, and death have occurred
Symptoms of massive overdosage with acetaminophen may include nausea vomiting anorexia and abdominal pain beginning shortly after ingestion and lasting for 12 to 24 hours However early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms the patient may feel less ill, however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin In case of serious hepatotoxicity jaundice, coagulation defects hypoglycemia encephalopathy coma and death may follow Renal failure due to tubular necrosis, and myocardiopathy have also been reported
Ingestion of 10 grams or more of acetaminoohen may produce hepatotoxicity A 13-gram dose has reportedly been fatal
TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists naloxone, nalorphine and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered preferably I V , simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient s condition remains satisfactory In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions
Oxygen IV fluids vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia nausea vomiting and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407 1977)
Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

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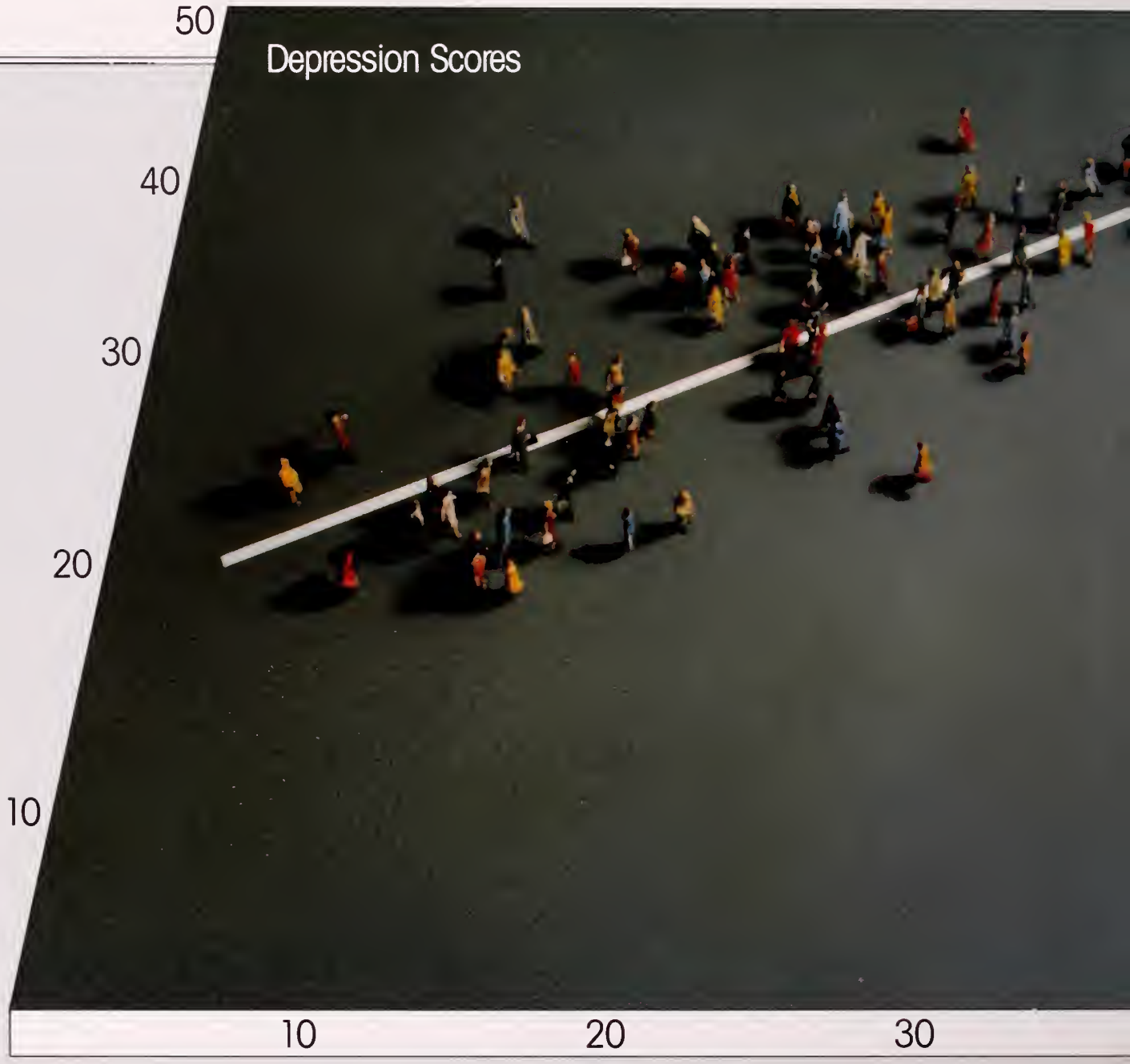
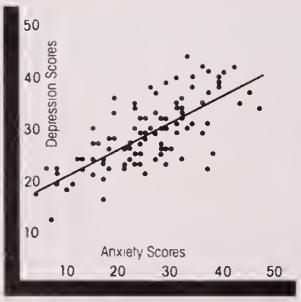
FOR THE 7 OF 10 NONPSYCHOTIC





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Clagharn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

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DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

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References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35*:1359-1365, 1978. **3.** Claghorn J: The anxiety-depression syndrome. *Psychosomatics 11*:438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137*:1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61*:217-225, 1979.

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Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer—Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety.
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage. Withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.
In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
Adverse Reactions: Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50.

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Alcohol	5%

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Hyoscyamine Sulfate	0 19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0 01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.
Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication In children and infants, antihistamine overdosage may produce convulsions and death

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening Not recommended for children under 12 years of age Tablets are to be swallowed whole

HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
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DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains:

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Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated
Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming Ru-Tuss Expectorant may cause drowsiness Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings) Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease Caution should also be used in patients with pulmonary, hepatic or renal insufficiency

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period
Children 6 to 12 years of age ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period Children 2 to 6 years of age ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period Children under 2 years of age Use as directed by a physician

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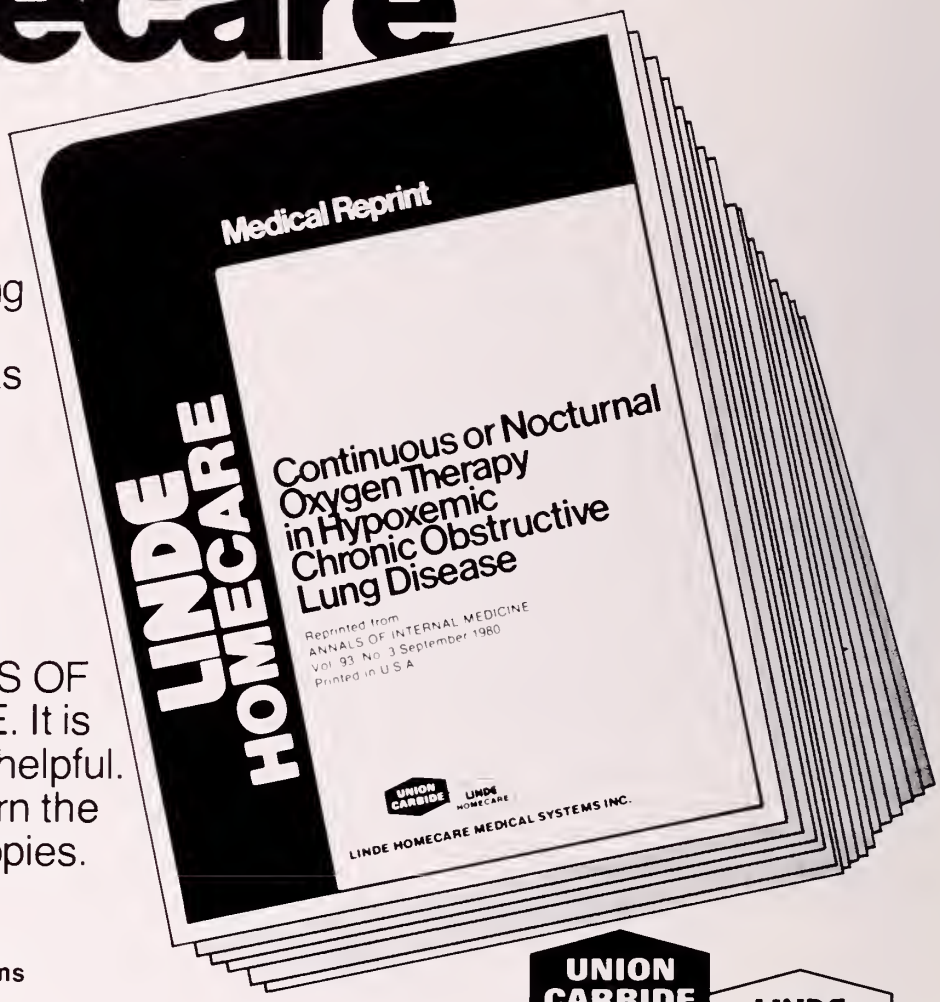

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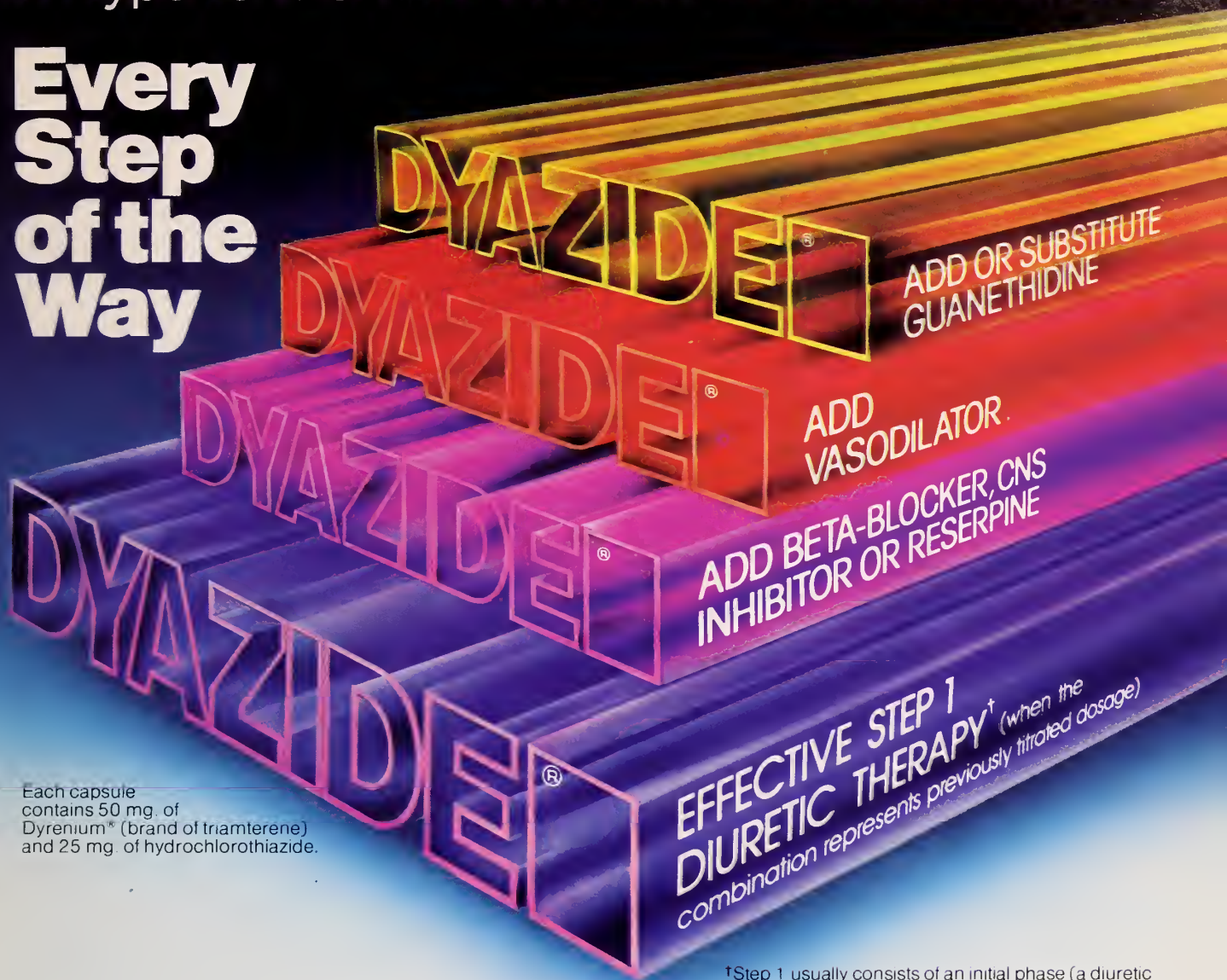

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†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently: both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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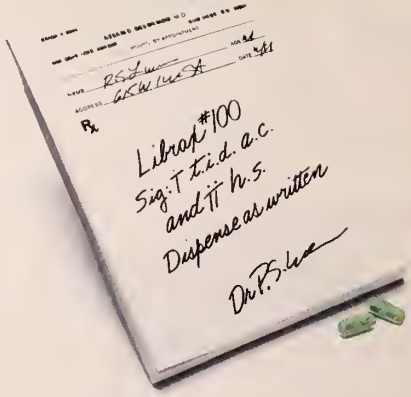

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References: 1. Sullivan MA, Cohen S, Snape WJ: *N Engl J Med 298*:878-883, Apr 20, 1978.
2. Snape WJ et *al*: *Gastroenterology 72*: 383-387, Mar 1977.

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Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed, New York. Raven Press, 1978, pp. 391-404.

Tenuate® ⓒIV
(diethylpropion hydrochloride USP)

Tenuate Dospan® ⓒIV
(diethylpropion hydrochloride USP)
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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

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WVU Goes To India For Visual Survey And Treatment Project

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The authors planned and/or participated in a three-week rural eye clinic held two years ago in Ongole, Andhra Pradesh, India. Nearly 4,000 were seen in the outpatient clinic; 142 cases were selected for surgery. Postoperative visual function was excellent. Two of the authors who participated in the clinic received valuable training while serving their final year in ophthalmic and anesthesiology residencies.

The purpose of a residency training program in medical education is to provide the trainee with skills and expertise in his chosen specialty. This training normally occurs at just one institution with a fixed faculty. Rarely does a resident have the opportunity to expand his knowledge and perhaps acquire additional skills in a completely different environment, society or culture.

Procedures and practices in the delivery of health care vary all over the world. Most of them have stood the test of time; and while we prefer to think ours is the best, the authors feel that a degree of exposure to all forms of health care delivery in a particular specialty could contribute to a resident's well-rounded education.

Two of the authors (T. F. and M. G.), while serving their final year in ophthalmic and anesthesiology residencies, respectively, had valuable educational and practical training when they went to rural India to help conduct an energetic eye relief program lasting three weeks.

This program was initiated three years ago by the other author (V. K. R.), Department of Ophthalmology, West Virginia University. Its objective was to provide a degree of advancement to ophthalmic medicine and surgery through an acceptable blending of three elements: teaching, service and research. All health care personnel, both American and Indian, participating in this project benefited from the teaching phase. Not only did they learn from their colleagues, but valuable information also was gleaned from the patients. The service provided resulted in better ophthalmic health to hundreds of Indian natives. Results of a research project initiated in this program might provide a better understanding of the etiology of congenital cataracts.

Developing countries almost universally suffer from severe health service shortages, particularly in rural areas. It is thus unfortunate that many untreated curable diseases can become incurable in time. Such is the case with cataract, which is particularly high in rural India where 70 per cent of the population lives and where adequate ophthalmic services are not normally available.

Cataract also remains a problem in the developed parts of the world where more people survive to old age and are afflicted with senile cataracts. Victims in the developed countries usually have access to adequate surgical and nursing resources to correct their disease. In the developing countries the picture is different. Thousands of blind and partially blind are waiting to be cured. A relatively simple operation exists to cure them, but there are simply not enough health personnel and facilities to provide the necessary relief.

In India, approximately seven per cent of the country's population suffers some form of visual impairment in one or both eyes owing to cataract. Large scale ophthalmic facilities are required to manage this disease effectively.[1,2]

Efforts to manage these cataracts literally have spanned centuries, from the ancient and disreputable modern couchers* to the relatively recent eye camps** and mobile eye clinics.

Although the mobile eye clinics and the eye camps are markedly superior to the untrained couchers, the incidence of postoperative complications still is unacceptable when compared to similar statistics in metropolitan areas. For instance, postoperative complications in the mobile clinics and eye camps have been as high as 15 per cent.[4] This compares with less than three per cent postoperative complications in the metropolitan areas. Although the quality of the eye camps improved considerably when trained personnel from recognized teaching hospitals began to participate in them, the postoperative complication rate remained high.

Today, cataract extraction is one of the most successful and satisfying operations in ophthalmic surgery. Although still an extremely delicate procedure, modern techniques, equipment and expertise have reduced cataract extraction to routine ophthalmic surgery, which is frequently performed by ophthalmic residents relatively early in their careers.

One of the authors (V. K. R.) endeavored to combine the best elements of both rural and metropolitan methods as a means of increasing the efficiency of cataract management. Specifically, these elements included: soliciting community cooperation; employing saturation-type advertising to the area for potential patients; and preparing mass-screening procedures for patient selection. All these elements were common to the eye camp operations. To reproduce the cataract-extraction environment of a modern inpatient facility, a permanent primary/acute care facility with modern equipment, instruments and appropriate drugs was needed.

The community of Ongole, located in the agricultural state of Andhra Pradesh, India, was selected as the target site of the eye clinic. Although Ongole is a town of just under 100,000, it serves as the hub of a rural area containing many small villages. It is located near the equator and is characterized by a higher incidence of cataracts occurring in younger age groups than is commonly found in the United States.

With the assistance of the local Lions Club, arrangements were made to have the clinic conducted in a small private hospital rather than the usual non-health-related public building chosen to house an eye camp. After all local preliminary plans were made, efforts were put forth to duplicate, as nearly as possible, the environment of a modern ophthalmic surgical suite. Accordingly, needed supplies, equipment, and other materials essential to a successful clinic were acquired and sent to India in preparation for the clinic. At the time the actual clinic was conducted, all materials used were similar to those found in a standard American ophthalmology operating suite.

A portable operating microscope was taken, along with the Ocutome system (Figure 1) which permits removal of congenital cataracts through two needle entrances into the eye. The small probe of the Ocutome allows cutting and suctioning of the opaque lens through one entrance while the other permits even maintenance of the chamber depth with balance salt solution.

Figure 1. Main console of Ocutome.

*Coucher is taken from the French verb, "coucher," to recline or lie down. The couching method for cataract management involves surgical displacement of the cataract. Couching is the earliest form of cataract therapy, and was practiced nearly 3,000 years ago by Susrutha, an ancient Indian surgeon. Couching was the formally accepted method for managing cataracts all over the world until the middle of the 18th century (Duke-Elder).[3]

**The eye camp concept involves a "crash-program" approach to ophthalmic health care delivery. Comprehensive, cooperative relief efforts on a large and temporary scale are assembled to treat cataracts in rural areas of India. Medical personnel, social workers, administrators, teachers and students are united in a cooperative endeavor to treat large numbers of patients. These eye camps vary in duration, from a few days to a few weeks.

Approximately 10 days before the opening of the clinic, appropriate advertisements appeared in local newspapers and on the radio stations. Any person with a visual disorder was advised to visit the camp for diagnosis and possible treatment.

Procedure and Methods

Outpatient: Nearly 4,000 were seen in the outpatient clinic, which lasted six days. External segment examination was done with an ophthalmic loupe and a flashlight. Where indicated, intraocular tensions were measured by Schiotz tonometry. To examine the ocular fundus, 10-per cent phenylephrine or Topicamide (mydriacyl) one per cent was used. The outpatient sessions were conducted from 9 A. M. to 8 P. M. For treatable disorders of the eye, drugs were distributed freely.

The outpatient examination divided the patients into two groups, operable and inoperable. Those patients who had complex ocular disorders such as optic atrophy or retinal disease were considered inoperable. The inoperable patients were referred to the regional teaching hospital for further care.

Screening and Admission: All the patients selected for surgery were seen again on the seventh day for general medical examination. Blood pressure was checked and urine examined for sugar and protein. Those with hypertension (diastolic pressure more than 100mm Hg) and those with diabetes and albuminuria were advised against the operation and referred to a physician. Patients who had ocular tension above 24 mm Hg by Schiotz tonometry and those whose nasolacrimal passages were not patent also were excluded and given suitable advice. By excluding in this manner, 142 cases were selected for surgery (122 adults and 20 children).

Preoperative Care: Adult patients were admitted one day preoperatively and prepared by surgical nurses and auxiliary personnel as follows:

1. Chloramphenicol drops 0.5 per cent q4h
2. Light diet on the previous night
3. Sedation
4. Premedication with valium and Diamox orally

Anesthesia: All adult patients had operations under local anesthesia which consisted of facial and ciliary block with mixture of two-per cent Xylocaine and one-half-per cent Bupivacaine (Marcaine). Proparacaine HCL (Alcaine) drops were instilled into the conjunctival sac. Children were anesthetized with Ketamine administered intravenously.[5]

Operation: (Figure 2) Conventional intracapsular extraction was performed in adult cataracts. The surgical team consisted of two surgeons, four assistants, two nurses and two auxiliary staff. There were three operating tables and, as the surgeon operated at one table, the nurse and one assistant prepared the second patient for surgery on another. Little time was lost between operations. A fornix-based peritomy was done usually at about 180°, and a Beaver blade was used to make a corneal incision. The traditional Graefe's knife was not used. The incision was enlarged with the corneal scissors. A peripheral iridectomy or sector iridectomy was done. Three corncoscleral sutures were placed with 8 or 9-0 silk. Intracapsular extraction was performed with a cryoprobe. Alphachymotrypsin was used in people under the age of 60. After the extraction of the lens, two or three more sutures were placed. The conjunctival flap was brought down onto the wound and tucked at the 3:00 and 9:00 positions with 8-0 silk. Chloramphenicol ointment and either

Figure 2. In the operating room, 122 intracapsular cataract extractions were performed with cryoprobe within a six-day period. Operating microscope was used in most of the cases.

Figure 3. Lensectomy with Ocutome in children.

pilocarpine two-per cent or atropine one-per cent drops were instilled into the conjunctival sac. Only the operated eye was bandaged. An average total of 32 minutes was spent on each operation. Congenital and traumatic cataracts were removed with the aid of an Ocutome (Figure 3).

Six of the children presenting with congenital cataracts had strong family histories of congenital and juvenile cataracts. When these opaque lenses were removed they were transported to the regional medical school for biochemical analysis. This analysis revealed an inhibitor substance to Na-K-ATPase in all the cataracts. Such an inhibitor substance has been reported previously, but only in mice (Fukui HN *et al.*[6]). Further studies to elucidate this finding are in progress.

Postoperative Care: After the operation, the patients were moved into the ward where they lay immobile for the first 24 hours. Close observation was maintained and analgesics were administered as necessary. The first dressing was done after one day when the pad was changed and antibiotics and atropine drops instilled. At this time the patients also were permitted to sit up and go to the bathroom. The dressing of the operated eye was changed each morning. Those free of complications were discharged on the fifth day: eye drops were provided for home administration. They were asked to return in six weeks for refraction, at which time free aphakic spectacles were provided. Patients who developed complications were kept two more days. All patients were given home care instructions, and arrangements were made for further followup.

Results: Postoperative visual function was excellent as revealed by the following: 20/40 or better—75 per cent (95 cases); 20/50—22 per cent (28 cases); 20/200—three per cent (four cases) (Table). There were no cases of sepsis. Complications included shallow anterior chamber—two: iris prolapse—one: uveitis—one: hyphema—four; and secondary glaucoma—one.

TABLE

Visual Results of Cataract Surgery in Eye Camp (122 senile cataracts)

Post-Op Visual Acuity	*No. of Cases*
20/40 or better	90 (75%)
20/50	28 (22%)
20/200	4 (3%)

Discussion

For many years the eye camps had a considerable impact on the cataract problem in India. The authors felt that with modifications to the eye camp concept, as outlined herein, even further favorable strides could be made.

The successful experience with this endeavor, coupled with the potential valuable learning experiences for participating residents from the United States, and opportunities to obtain additional valuable research material, prompted immediate plans for future annual clinics.

Doubtlessly, further experience will result in additional modifications. Although this massive eye relief program in India was mainly concerned with the treatment of cataract, it also had an indirectly favorable effect on other eye diseases. Early detection of these diseases prompted early treatment and subsequent healthy vision. Consequently, this program, plus the mobile eye clinics and eye camp programs, have saved countless natives from lifetimes of impaired vision..

The patient population served presented a valuable exposure to situations not commonly encountered in training programs in the United States. Such cases included trachoma, leprosy and other diseases indigenous to a tropical climate in a developing country.

The doctor-patient relationship also was different. The patients always displayed marked respect to the physician, such as bowing at any encounter.

The quality of service delivered at this eye relief project compared favorably with that of the major hospitals of the developed countries. It is expected that a research project will be continued concerning the etiology of congenital cataracts. Biochemical analysis of these cataracts was noted earlier in this paper.

The surgical procedures performed in this clinic were far less expensive than comparable procedures in regular hospitals, the average cost per operation being about $10. This modified eye camp concept also might be promising in developing countries other than India.[7] In Africa too, cataract is one of the major causes of blindness.[8,9] A study group from Harvard University suggested that even the developed countries could benefit from this concept in delivering ophthalmic health care.[10]

Acknowledgements

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Inc.: Frigitronics of Conn., Inc.: Beaver Rudolph, Inc.: Parke-Davis and Co.; Burroughs Wellcome Co.: and MAP (Medical Assistance Program), International. Also, sincere thanks to Robert L. Murphy and Marie Kidd for their valuable editorial and secretarial support.

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Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 ½ by 11 in.) white paper. Wide margins (at least 1 ¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

Calcified Omental Cyst: A Case Report And Review Of Literature

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Primary or true omental cysts of clinical significance are a rare occurrence. Roentgenographically-visible calcified omental cyst is an unusual presentation of this entity. This is a case report.

A 63-year-old female was admitted with complaints of vague right upper quadrant pain accompanied by feelings of nausea for the previous six months. Her history consisted of a tonsillectomy and hysterectomy within the last 20 years. The physical examination and the laboratory data were within normal limits.

The scout film of the abdomen prior to oral cholecystogram (Figure 1) revealed a calcified mass in the left lower quadrant. There appeared to be a pedicle-like structure at the superior border of this mass. Various differential possibilities suggested were a Meckel's diverticulum with a fecalith, a calcified hematoma, an Echinococcus cyst, calcified omentum or a mesenteric cyst and an intra-abdominal lithopedion. The gallbladder series showed multiple radiolucent gallstones. The upper GI series, barium enema and chest radiographs were within normal limits.

During laparotomy and cholecystectomy, an omental cyst was removed. On gross examination, the specimen consisted of a smooth-walled cyst measuring five cms. in diameter and possessing an eggshell consistency. After decalcification, the sections (Figure 2) revealed a unilocular cyst filled with grayish black and yellowish putty-like material which separated easily from the thin cyst wall. The microscopic sections showed an endothelial-lined cyst of lymphatic origin.

Discussion

The first case of a mesenteric cyst was described by Benevieni, an anatomist from Florence, in 1507.[3] It is estimated that 50 per cent of the mesenteric cysts are found in the small bowel mesentery. Only two per cent of such cysts are located in the omentum.[5]

Gairdner, in 1852, published the first case report of an omental cyst. Hinkel, in 1942, described calcification in a mesenteric cyst as a rare radiographic finding, although microscopic calcifications had been described as early as 1927 by Swartley. The surgical literature is replete with case reports of solitary mesenteric cysts, even multiple ones,[6] but only a few mention calcification in such cysts.[4,5,9,13]

The cysts are thought to be lymphatic in origin and result from obstruction of normally placed or ectopic lymphatic channels unable to establish communication with the vascular system. These cysts usually grow in size with age. It is estimated that about 25 per cent of the mesenteric cysts are found in children under 10 years of age. Burnett, in a review of 200 cases, showed slight female preponderance of 1.6 to 1.0.

The cysts of the omentum may be primary (true) or secondary. The primary cysts are epithelial (dermoid) or endothelial (lymphatic). The secondary cysts may be hemorrhagic

Figure 1. A scout film of the abdomen showing an oval calcified mass in the left lower quadrant.

(traumatic), parasitic (Echinococcal), inflammatory or infective (due to foreign body or fat necrosis). Horgan, in a review of 97 cases of omental cysts, found 52 per cent lymphogenous and 48 per cent hematogenous cysts. Likewise, primary omental tumors are very rare. The cystic tumors outnumber the solid four to one. Of the solid tumors, liposarcoma and fibrosarcoma are more common than lipomas. This is paradoxical since, from a tissue made up entirely of fat, a high incidence of lipomas would be expected.

Roentgenologically, an omental or a mesenteric cyst appears as a mass of fluid density. Depending upon the size and location, displacement of adjacent viscera may be seen. Very large cysts may simulate ascites or be associated with it.[14] Calcification may be seen as calcific or rim-like plaques. Very often, only a portion of the wall of the cyst is calcified. The cysts may be freely movable.

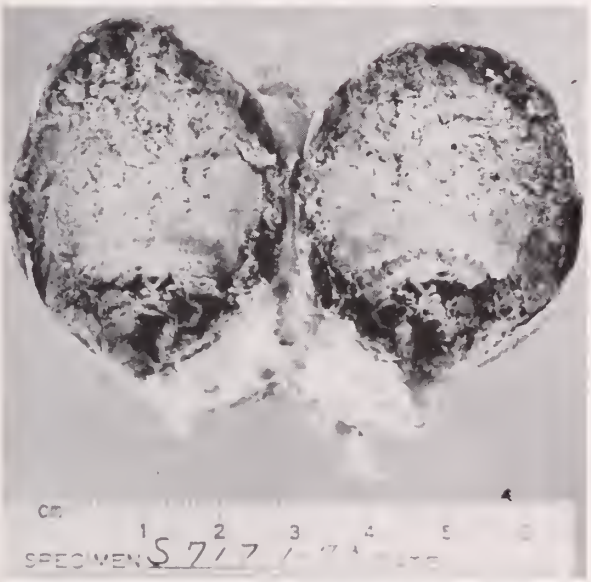

Figure 2. Cut section of decalcified omental cyst. The unilocular cyst is filled with grayish black and yellowish putty-like material which separated easily from the thin cyst wall.

Rarely, intestinal obstruction is caused by large or strategically-located cysts. With torsion or rupture of the cyst, an acute abdomen with nonobstructive distension may be present. The majority of omental cysts lie anterior to the intestine. The barium studies may be helpful in localizing anterior location. Recently, selective superior mesenteric angiography has been used with success in localizing these cysts preoperatively.[11]

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A message from . . .

The President

OBLIGATIONS AS PHYSICIANS

I stated last month that we must lead. If this premise is valid and we accept this role, we are then committing ourselves to responsibilities and obligations. All leadership demands commitments. If we fulfill them, our critics may be, if not silenced, at least less vocal. We have had these obligations before us in many ways, but I feel that they are of such a magnitude that they require re-emphasizing.

The first and foremost obligation we have as physicians is to provide to all patients the highest quality of medical care possible. This must be without reservation and without regard for patient category.

Second, we must, as we have been, continue to be the standard by which all health care delivery is measured. We must work to raise this standard ever higher to pursue excellence always. We cannot accept anything less than standard among our colleagues, for how can we condemn members of other professions we consider less qualified, or not qualified at all, if we condone the same within our own profession? This is, perhaps, one of our most difficult problems, but if we are true to our purpose it is one we must be willing to meet.

Third, we must continue to provide cost-conscious, cost-efficient care. Contrary to what some in the news media and government say, we too are consumers. We pay for medical care, as do all. Our health care benefit premiums are the same. We do not get a free ride. We must ever guard against over-utilization because of our limited health care facilities. As physicians, we are the access to these facilities and so must insure that these are available to those most needy when needed.

We must make patients aware of the cost of medical care. Third parties have refused to do so for whatever reason, profit or otherwise. We must be mindful of the economic as well as the physical and mental health of our patients. They must know that somebody pays regardless, and most often all of us pay. A great help in this direction would be getting third parties to use co-payment or deductible programs to lessen the demand for health care.

We must improve our public image. We must respond to the distortions and inaccuracies of our critics by telling our story, and by becoming involved in community affairs and projects in ways other than by providing care for our patients so that we will be recognized as concerned members of the community.

We have an obligation to be actively-involved members of our local, state and national organizations. Our profession decrees that we be unified in purpose. I feel that this decree also must apply to our organization. If we are unified in organization, as well as purpose, then our voice will be heard. We cannot as individual practitioners go it alone.

John B. Markey

John B. Markey, M. D., *President*

The West Virginia Medical Journal

Editorials

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BOARD OF MEDICINE SHOWS MOVEMENT

There's probably no governmental agency of more importance to physicians—and in large measure, to the public—than the West Virginia Board of Medicine. Prior to a complete 1980 legislative rewrite of the West Virginia Medical Practice Act, this was the Medical Licensing Board of West Virginia.

The Board's responsibilities go far beyond the licensing of doctors of medicine and podiatry to practice in West Virginia. The new legislation clarifies and broadens the duties it must assume in medical discipline, and in establishing procedures for assisting physicians troubled with age, mental and other impairments.

Over the years, the Board has caught a substantial amount of flak, from within the physician community and from without. Legislators from time to time have been critical of what they have felt has been delay in reacting to new trends in health care, and slowness in developing required administrative rules and regulations.

Local medical societies and individual physicians also have been critical, and again—as was the case in one specific recent case involving disciplinary action—the charge has been inactivity or a slowness in acting.

There are some encouraging indications that the Board is now perhaps taking the bit more between its teeth. Certainly the statute governing its activities had become more than outdated prior to the 1980 rewrite—the first complete revision of the law, incidentally, since it first went on the books in 1891. But the current law has compensated for those deficiencies.

The one key and outstanding fact, however, is that the 1980 statute can and will be only as effective as implementation of it. And the Board, once again, has been far too slow in getting necessary administrative rules and regulations in place.

We say we now are encouraged because—even though late when one notes the 1980 statute was effective July 1 of that year—the Board has been moving steadily and definitively along the rules and regulation track since mid-summer.

Perhaps by the time this editorial is in print new rules and regulations actually will be approaching final form. Meanwhile, the Board must, and seems inclined to, address more specifically and effectively other tasks assigned.

It has been this Association's opinion that a major problem in the past has been that the Board is understaffed. The old and current statute made, and make, the West Virginia Director of Health the Board's secretary and chief administrative officer. We don't think much of that arrangement, because the Director of Health has more than enough to do in administering the highly complex state department he heads.

In fact, the Medical Association sought to change that aspect of the law with the big 1980 bill by continuing the Director of Health as a Board member—but providing for appointment by the Board of its own executive secretary or director to serve at its will and pleasure. Some legislative pressure opposed that idea, however, and it was abandoned in the overall effort to get the new statute on the books.

The Board has money—and authority—however to employ such "investigators, attorneys, hearing examiners, consultants and such other employees as may be necessary" for it to carry out its duties. It has, in the past, employed its own attorney, and it currently has an investigator on staff.

It's our suggestion that it ought to go a step further and find a good, solid administrator to work under the Director of Health, and to assure day-by-day minding of the store. This would in no way reflect on the capabilities of other current Board employees. It simply would provide some new direction and expertise that would benefit everyone.

As for legal assistance, the Board recently has been dependent upon the Attorney General's

Office. That hasn't worked too well, either, because over a period of some few years to the present it has had four different assistant attorneys general assigned to it.

Continuity in such legal assistance, and the opportunity for lawyers so assigned to learn the ropes, so to speak, also are essential to effective performance.

We thus would have one more suggestion: if the Board is going to be represented by an assistant attorney general, Attorney General Chauncey Browning should be urged to take all possible steps to insure some stability in that representation. If that can't be accomplished, the Board should look elsewhere for counsel.

HEALTH CARE COSTS, CONCERNS

It seems that, for the moment, the audible clamor related to health care cost containment has abated somewhat. There's no significant, current pressure for new federal legislation, for example. But that doesn't mean voluntary efforts to hold down such costs should be relaxed one iota.

We suspect that Wilfred D. Wooldridge, M. D., the editor of *Missouri Medicine*, raised a few eyebrows when he wrote recently that so-called cost containment "won't work when physicians ride the hospitals as they do today." He added that "neither will it work when inflation is unabated and the cost containment concept is applied to a single segment of our economy." Doctor Wooldridge continued:

"Don't get me wrong! I am not defending hospitals nor am I defending the medical profession. I have no patience with either because, on any given day, I could roam the hospital corridors and discharge 30 per cent of the patients who wouldn't be there if they had to pay their own way. It takes doctors to put them there and hospitals to keep them. Both are feathering their own nests. Both know it well.

"Nevertheless, things are getting done in hospitals which couldn't have been done. Those things are generally the result of technological sophistication. Compare the current cost of an F-15 fighter (plane) and its counterpart of 1960. Money, money — lots of money!

"The results of such equipment outlay might not be as apparent to the patient as the difference in two meals (purchased three years ago and today), but if it is *your* heart, *your* aorta or *your* kidney, which way do you want to go?"

What is the current trend nationally, using the Consumer Price Index (CPI)? For 12 months through June, 1981, the increase in the all services price index (10.7 per cent) exceeded the percentage increase in the physicians' service price index (10.5). Both exceeded the all items price index increase (9.6 per cent).

There still is much to be done, and while openly expressed public sentiment perhaps has eased, the pressure still is there.

Doctor Wooldridge has raised, of course, clearly valid points regarding the fallacy of trying to control one segment of the economy—and about technological advances coupled with individual patient demands.

But the Voluntary Effort (VE), the intensely developed program of the American Medical Association, American Hospital Association, their state and local association counterparts, and others, still must occupy center stage and receive the spotlight billing it demands.

HIGHER FEES

Two state agencies have announced in recent weeks some upward adjustments in physicians' fee schedules. The Division of Vocational Rehabilitation put into effect as of July 1 a new fee schedule containing increases averaging 12 per cent. The Department of Welfare will increase outpatient fees under its Medicaid Program from $7 to $10 per office visit this fall.

That's welcome news for providers, but again it is the underlying principle of the same level of patient care for all that's important. *The Journal* has talked repeatedly for some time now about the unacceptability of two levels of care, with the poor and needy at the bottom of the ladder.

It has stressed that hospital emergency rooms are not the place to manage the chronically ill. And it repeatedly has insisted that if Government is going to offer medical and other services, it must be prepared to pay reasonable fees for them.

Vocational Rehabilitation Director Earl Wolfe told the Association Council that his agency's fee schedule increase is the fifth in the past six years, and that—fiscal conditions permitting—he hopes he can make other adjustments.

"Both you and I know that our fees are still too low," Mr. Wolfe said. "I hope you will take the most recent increase as an indication of our continued desire to recognize your invaluable contributions to the rehabilitation of handicapped West Virginians, and to compensate you at least somewhat better for your services."

GENERAL NEWS

Doctor Markey New President Of Medical Association

Dr. John B. Markey of Charleston, a surgeon, has assumed duties as the new President of the West Virginia State Medical Association.

Doctor Markey was installed as President by Dr. L. Walter Fix of Martinsburg, the retiring President, at the concluding session of the House of Delegates during the 114th Annual Meeting Saturday, August 22, at the Greenbrier in White Sulphur Springs.

The convention began with a meeting of the Council on Thursday, August 20. The official Medical Association registration totaled 339 and included 299 physicians, up from a total registration of 304, with 273 physicians, in 1980. Auxiliary registration was 136.

Doctor Fix presided at Thursday and Saturday sessions of the House. He automatically became Chairman of the Council for the new Association year, succeeding Dr. Stephen D. Ward of Wheeling.

Elevated to President Elect from Vice President was Dr. Harry Shannon of Parkersburg, a urologist, who will be installed as President during the 1982 Annual Meeting, scheduled at the Greenbrier next August 26-28.

Doctor Adkins Vice President

Dr. Carl R. Adkins of Fayetteville, a family physician, was elected Vice President, and Dr. George A. Shawkey of Charleston, a pediatrician, was re-elected Treasurer.

Dr. Frank J. Holroyd of Princeton was re-elected to a two-year term as a Delegate to the American Medical Association, with Dr. Jack Leckie of Huntington re-elected as Alternate Delegate.

Eleven new Council members were elected, with two other physicians re-elected to two-year terms. There being no successor nominated for Dr. Dewey F. Bensenhaver of Petersburg (District V), who was not eligible for re-election, President Markey will appoint the Councilor for that vacancy.

The 11 new Councilors are:

Drs. Antonio S. Licata of Weirton, D. L. Latos of Wheeling, Roland J. Weisser, Jr., and George A. Curry, both of Morgantown; Cordell A. de la Pena of Clarksburg, John A. Mathias of Buckhannon, Winfield C. John of Huntington, Joe N. Jarrett of Oak Hill, George W. Hogshead of Nitro, Robert R. Rector of Elkins, and Diane Shafer of Williamson.

Re-elected were Drs. Joseph T. Skaggs of Charleston and T. Keith Edwards of Bluefield.

Holdover Councilors whose term will expire in 1982 are Drs. William L. Mossburg of Fairmont, Leo H. T. Bernstein of Martinsburg, Michael J. Lewis of St. Marys, Thomas F. Scott of Huntington and Sherman E. Hatfield of Charleston.

The Council now is composed of 19 members instead of 15 as previously as a result of Constitution and Bylaws amendments approved by the

Harry Shannon, M. D.
President Elect

House in 1980 providing for additional representation for the larger Council Districts.

Under the terms of the Association's Constitution, Doctor Ward, the Council Chairman last year, becomes Councilor-At-Large for 1981-82; and Dr. Robert D. Hess of Clarksburg, the Association President three years removed, will serve as Junior Councilor during the period.

A resolution calling for the appointment of a "qualified administrator holding the degree of doctor of medicine" to the Vice President for Health Sciences position at West Virginia University; and a policy statement on medical or health screening programs were adopted by the House.

Amendments to the Bylaws were passed to the effect that, effective in 1982 and thereafter, no active member can be elected to more than five two-year terms as a West Virginia State Medical Association Delegate to the AMA; and that an alternative method of dues collection may be authorized by the Council. (See separate stories on resolutions and amendments to Bylaws elsewhere in this issue of *The Journal.*)

The House also adopted a motion offered by Doctor Ward that the Executive Committee and Council devise a means for appropriately honoring and recognizing C. A. (Carl) Hoffman, M. D., of Huntington for his long years of service to organized medicine and to patient care; and that such recognition be rendered at the first meeting of the House in 1982.

Former AMA President

Doctor Hoffman, who was President of the State Medical Association in 1957-58, is the only West Virginia physician to have served as President of the American Medical Association (1972-73), and long has been active in insurance and other matters at the state and national levels.

Proposed amendments to open Association membership to doctors of osteopathy and students of the West Virginia School of Osteopathic Medicine were re-referred by the House to the Committee on Constitution and Bylaws. (See story on amendments to Bylaws elsewhere in this issue of *The Journal.*)

A native of Sharples in Logan County, Doctor Markey received an A.B. degree in pre-med, followed by a B.S. degree in medicine from West Virginia University in 1950 and 1952. He received his M.D. degree from the Medical College of Virginia in Richmond in 1954.

He served a rotating internship at the Charleston General Hospital, after which he completed a surgical residency at the same institution and, subsequently, entered the practice of general surgery in Charleston with Dr. Victor Skaff.

Some of the new or re-elected officers and Concilors of the State Medical Association are shown at the conclusion of the 114th Annual Meeting of the Association August 20-22 at the Greenbrier in White Sulphur Springs. Seated, from left, are Drs. John B. Markey, Charleston, President; Harry Shannon, Parkersburg, President Elect; L. Walter Fix, Martinsburg, immediate Past President and now Chairman of the Council, and George A. Shawkey, Charleston, re-elected Treasurer; standing, from left, Drs. George A. Curry, Morgantown, and Joe N. Jarrett, Oak Hill, new Councilors; T. Keith Edwards, re-elected Councilor; Robert R. Rector, Elkins, new Councilor; Frank J. Holroyd, Princeton, re-elected as an American Medical Association Delegate, and Jack Leckie, Huntington, re-elected AMA Alternate Delegate.

Along with his private practice of surgery, Doctor Markey was affiliated with a surgical training program offered at Charleston General Hospital until a merger with Charleston Memorial Hospital that formed Charleston Area Medical Center. He has been associated with the residency programs at CAMC since that time. He is an Associate Clinical Professor at the Charleston Division of the West Virginia University Medical Center, and a Fellow in the American College of Surgeons.

Two Daughters

During his first year in medical school, he married the former Betty Hamstead of Morgantown. They have two daughters, Barbara and Sandra. Barbara is a nurse at the Memorial Division of CAMC and Sandra recently received her degree in Animal Science at North Carolina State University in Raleigh, North Carolina.

Doctor Markey has served in various capacities during his professional career, starting as Chief of Surgery and, subsequently, as Chief of Staff at Herbert J. Thomas Memorial Hospital in South Charleston.

He was Secretary, Vice President and then President of the Kanawha Medical Society. He served as a member of the Council of the State Medical Association following his term as President of Kanawha Medical Society, and then held office as Vice President and President Elect of the State Association.

Prior to becoming Vice President of the State Medical Association, Doctor Markey served as Vice Chief of Surgery and Chief of Staff of the Charleston Area Medical Center.

Doctor Shannon, who was elected to a two-year term on the Association's Council in 1978, is practicing urology with Parkersburg Medical Associates, and is Chief of Staff at Camden Clark Memorial Hospital in Parkersburg.

Tulane Graduate

A native of Star City, Arkansas, he was graduated from Hendrix College in Conway, Arkansas, and received his M. D. degree in 1968 from Tulane University School of Medicine. He is a Diplomate of the American Board of Urology, a Fellow of the American College of Surgeons, and a member of the Mid-Atlantic Section, American Urological Association.

During the past year, he served as Chairman of the Association's AMA-ERF Committee and a member of the Association's Legislative, Public Service, and Long Range Planning committees.

Doctor Adkins, beginning in 1978, was elected to two terms on the Association's Council. He is a member of the Association's Legislative Committee and the Ad Hoc Committee on Audit and Budget.

A native of Holden, he received his undergraduate degree from West Virginia University and his M. D. degree from WVU in 1972. He interned at Roanoke (Virginia) Memorial Hospital.

Doctor Fix presented to Dr. David Z. Morgan, Associate Dean of the West Virginia University School of Medicine, a check for $16,515.33; and to Dr. Robert W. Coon, Dean of the Marshall University School of Medicine, a check for $5,136.20 during the first House session. The checks represented an annual contribution by West Virginia physicians and the Auxiliary to the medical schools through the Education and Research Foundation of the AMA (AMA-ERF).

Dr. L. Clark Hansbarger, Director of the West Virginia Department of Health, addressed physicians during opening exercises preceding the first general scientific session on Friday morning.

Amendments To Bylaws Get House Approval

Here are the two amendments to the West Virginia State Medical Association Bylaws adopted by the House of Delegates during the August Annual Meeting at the Greenbrier in White Sulphur Springs. The material in italics represents new language added to the Bylaws, and a note in parenthesis explaining the thrust of the amendment follows each of the approved changes.

Amend Chapter VIII, Section 5 (o) to read as follows:

Section 5 (o). The Committee on Nominations shall consist of district Councilors, and the Junior Councilor-at-Large, who shall serve as Chairman. The Councilors from the odd-numbered districts shall serve as the Nominating Committee in odd-numbered years, and the Councilors from even-numbered districts shall serve in even-numbered years. Each Councilor District which has more than one Councilor shall be represented by its senior Councilor in point of service on the Committee. This Committee shall consider and recommend to the House of Delegates, prior to the election of officers in its

final session, its nominees for the office of President Elect, Vice President, Treasurer and the AMA Delegate and Alternate; and the Committee shall submit at least two nominees for all offices except President Elect. Nothing in this Section shall serve to prevent any nominations from the floor for these respective offices.

Effective in 1982 and thereafter, no active member shall be elected to more than five two-year terms as a West Virginia State Medical Association Delegate to the American Medical Association. Service as an Alternate Delegate shall not be counted in the above limitation.

(Note: This proposed amendment would limit the service of any active member Delegate to the American Medical Association to 10 years.)

Amend Chapter X, Section 8 to read as follows:

Sec. 8. The secretary or treasurer of each component society shall remit promptly to the Executive Secretary of the Association dues of members as collected. *An alternative method of dues collection may be authorized by the Council.* The secretary shall notify the Executive Secretary of any change in the officers of the society, and shall also notify him promptly concerning the death or removal from the county of any member of his society.

(Note: This proposed amendment would authorize the Council to approve an alternative method of dues collection, such as direct billing by the Association with a remittance of local dues to component societies if a comprehensive study of the feasibility and potential economic benefits of a computerized system of central billing by the Association headquarters proves positive, and has the support of component society leadership.

A proposed series of amendments to the Medical Association's Constitution and Bylaws to open the Association membership to doctors of osteopathy licensed to practice in West Virginia, and to students of the West Virginia School of Osteopathic Medicine, on a voluntary basis was re-referred by the House to the Committee on Constitution and Bylaws.

The House directed that further input from the Medical Association's 29 component societies be sought on this membership question; and that the view of the West Virginia Society of Osteopathic Medicine and its membership be solicited before further consideration of the proposed amendments.

Standing, Special Committees Named By Doctor Markey

Here is a list of the standing, special and ad hoc committees which have been named by Dr. John B. Markey of Charleston, President of the West Virginia State Medical Association, to function during his one-year term of office.

Refer To This List!

Until the new 1982 State Medical Association Roster of Members (also containing committee appointments) is printed and distributed, Association members should retain this list for committee assignment reference purposes.

Typed committee lists are being mailed to committee chairmen, and individual letters of notification of committee assignments are being sent to committee members as time permits.

Aging

Lee B. Todd, Quinwood, Chairman; Pat A. Tuckwiller, Charleston, Vice Chairman; Myer Bogarad, Weirton; Richard Hamilton, St. Marys; Theodore P. Mantz, Charleston; Josefina Q. Marcelo, Berkeley Springs; Sam Milchin, Bluefield, Virginia; Ralph H. Nestmann, Charleston, and William J. Steger, Wheeling.

Cancer

Alvin L. Watne, Morgantown, Chairman; John J. Battaglino, Jr., Wheeling; Walter B. Bice, Jr., Parkersburg; Timothy K. Bowers, Martinsburg; James P. Carey, Huntington; Cordell A. de la Pena, Clarksburg; S. William Goff, Parkersburg; David B. Gray, Charleston; John Battle Haslam, Charleston; Catalino B. Mendoza, Jr., Clarksburg; Hu C. Myers, Philippi; Robert D. Neilson, Jr., Bluefield; Jess S. Renedo, Wheeling; Shirley Willis Trammell, Charleston; John W. Trenton, Kingwood, and Carlos A. Vasquez, Wheeling.

Constitution and Bylaws

Stephen D. Ward, Wheeling, Chairman; Richard E. Flood, Weirton, Vice Chairman; Carl B. Hall, Charleston; Robert D. Hess, Clarksburg; J. C. Huffman, Buckhannon; Richard V. Lynch, Jr., Morgantown; John J. Mahood, Bluefield; Joseph B. Reed, Buckhannon; Joseph T. Skaggs, Charleston, and Harry S. Weeks, Jr., Wheeling.

Insurance

Jack Leckie, Huntington, Chairman; Lyle D. Vincent, Parkersburg, Vice Chairman; William R. Barton, Wheeling; James L. Bryant, Clarks-

burg; John T. Chambers, Charleston; David V. Cole, Point Pleasant; R. U. Drinkard, Wheeling; L. Walter Fix, Martinsburg; H. Summers Harrison, Morgantown; James A. Heckman, Huntington; C. A. Hoffman, Huntington; Edward Jackson, St. Albans; James W. Lane, Charleston; Kenneth G. MacDonald, Sr., Charleston; Joseph A. Smith, Dunbar; C. Vincent Townsend, Martinsburg, and John F. I. Zeedick, Charleston.

Sub-Committee on Investments and Trust

C. A. Hoffman, Chairman; James L. Bryant (1982), John T. Chambers (1983), L. Walter Fix (1984), and Kenneth G. MacDonald, Sr. (1985).

Ad Hoc Committee on Professional Liability

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Interprofessional Relations

William E. Gilmore, Parkersburg, Chairman.

Sub-Committees

Medico-Legal: John F. I. Zeedick, Charleston, Chairman; Charles W. Merritt, Beckley; John F. Otto, Huntington, and William C. Revercomb, Jr., Charleston.

Medicine and Religion: Joe N. Jarrett, Oak Hill, Chairman; Marshall J. Carper, South Charleston; William L. Neal, Huntington, and Joseph T. Skaggs, Charleston.

Medicine and Pharmacy: L. Dale Simmons, Clarksburg, Chairman; Donald E. Cunningham, St. Albans; John L. Fullmer, Morgantown, and Donald S. Robinson, Huntington.

Medical-Dental Liaison: John A. B. Holt, Charleston, Chairman; Alberto G. Capinpin, Charleston; Gene Lee Hackleman, Huntington, and David A. Kappel, Wheeling.

Nurses Liaison: Richard E. Flood, Weirton, Chairman; Billie M. Atkinson, Parkersburg; Jean P. Cavender, Charleston; David L. Ealy, Moundsville; Asel P. Hatfield, Harrisville; Ali H. Morad, Ripley, and Jack J. Stark, Belpre, Ohio.

Legislative

Frank J. Holroyd, Princeton, Co-Chairman; Stephen D. Ward, Wheeling, Co-Chairman; W. Alva Deardorff, South Charleston, Vice Chairman; Carl R. Adkins, Oak Hill; David F. Bell, Jr., Bluefield; R. Paul Bennett, Webster Springs; A. Paul Brooks, North Parkersburg; William H. Carter, South Williamson; John T. Chambers,

Executing an agreement (left photo) between the West Virginia State Medical Association and CNA, the Chicago-based carrier for the Association's endorsed professional liability insurance program, are, seated, from left, Ray Kelly, Senior Manager, Sales, for CNA, and L. Walter Fix, M. D., Martinsburg, the Medical Association's 1980-81 President. Observing the signing, standing, are Robert F. Groen, Jr., CNA Account Executive (left), and John B. Markey, M. D., Charleston, the Association's 1981-82 President. The agreement was signed during a meeting of the Association's Council prior to the Association's 114th Annual Meeting in August at the Greenbrier in White Sulphur Springs. Shown in the center photo speaking to physicians on professional liability following the first session of the House of Delegates is Thomas Miller, M. D., of Portland, Oregon. On the right is L. Clark Hansbarger, M. D. (left), Director of the West Virginia Department of Health, who delivered the Thomas L. Harris Address during opening exercises Friday morning, August 21. Shown with him following the talk is John J. Mahood, M. D., Bluefield, a Past President of the Association.

Charleston: John S. Cook, Welch: William D. Crigger, South Charleston: Del Roy R. Davis, Kingwood: Vernon E. Duckwall, Elkins: Roy A. Edwards, Jr., Huntington: T. Keith Edwards, Bluefield: A. C. Esposito, Huntington: Richard E. Flood, Weirton: George Gevas, Parkersburg: Paul E. Gordon, Clarksburg: N. B. Groves, Martinsburg: Carl B. Hall, Charleston: John M. Hartman, Charleston: Robert D. Hess, Clarksburg: John A. B. Holt, Charleston: J. C. Huffman, Buckhannon: M. V. Kalaycioglu, Shinnston: Jack Leckie, Huntington: Milton J. Lilly, Jr., Charleston: Paul L. McCluskey, Parkersburg: Worthy W. McKinney, Beckley: Harvey A. Martin, White Sulphur Springs: Charles W. Merritt, Beckley: Houston B. Moore, Lewisburg: Richard C. Rashid, South Charleston: Joseph D. Romino, Fairmont: Carl J. Roncaglione, South Charleston: Harry Shannon, Parkersburg: Joseph T. Skaggs, Charleston: James T. Smith, Charleston: Pat A. Tuckwiller, Charleston: Lyle D. Vincent, Parkersburg: Harry S. Weeks, Jr., Wheeling: Robert R. Weiler, Wheeling: J. Hugh Wiley, Morgantown, and Moseley H. Winkler, Charleston.

Medical Aspects of Sports

K. Douglas Bowers, Jr., Morgantown, Chairman; Tony C. Majestro, Charleston, Vice Chairman; Dewey F. Bensenhaver, Petersburg: Colin M. Craythorne, Huntington: Clemente Diaz, Richwood: Thomas O. Dotson, White Sulphur Springs: John P. Griffith, Jr., Wheeling: Robert E. Jones, Wheeling: James S. Kessel, Ripley: Charles A. Lefebure, Clarksburg: Harvey D. Reisenweber, Martinsburg: Carl J. Roncaglione, South Charleston: George W. Rose, Clarksburg: James K. Sexton, Charleston: Clifford Sperow, Martinsburg: Ron D. Stollings, Huntington (Student Member): William D. Strauch, Martinsburg: Robert R. Weiler, Wheeling, and Robert S. Wilson, Clarksburg.

Medical Economics

Robert L. Ghiz, Charleston, Chairman, and Harry S. Weeks, Jr., Wheeling, Vice Chairman.

Sub-Committees

Federal Medical Activities: W. Alva Deardorff, South Charleston, Chairman: Grover C. Hedrick, Jr., Beckley: J. L. Mangus, Charleston: Richard John Pearson, Morgantown: Harry B. Scott, Martinsburg: James F. Slaughter, Dunbar, and Philip M. Sprinkle, Morgantown.

State Workmen's Compensation: Carl J. Roncaglione, South Charleston, Chairman: Ralph J. Holloway, South Charleston, Vice Chairman: Marshall J. Carper, South Charleston: Wirt Lee Davis, Charleston: James V. Gainer, Jr., Clarksburg: Sherman E. Hatfield, Charleston: Lawrence S. Miller, Morgantown: Milton E. Nugent, Wheeling: Jack Pushkin, Charleston: Roy R. Raub, Princeton: M. D. Reiter, Wheeling, and Ralph S. Smith, Jr., Charleston.

Blue Cross-Blue Shield Third Party: Ernest G. Guy, Philippi, Chairman: Orlando I. Agnir, Martinsburg: Robert W. Bess, Jr., Piedmont: Albert C. Esposito, Huntington: Edward Jackson, St. Albans: Milton J. Lilly, Jr., Charleston: John F. Otto, Huntington: Richard C. Rashid, South Charleston: Joseph T. Skaggs, Charleston, and Edward C. Voss, Jr., Wheeling.

Public Welfare-Joint Conference Committee: Carl J. Roncaglione, South Charleston, Chairman: Charles E. Andrews, Morgantown: R. Paul Bennett, Webster Springs: Clemente Diaz, Richwood: Harold P. Dinsmore, Ronceverte: Richard E. Flood, Weirton: F. A. Hamilton, Jr., Martinsburg: Ralph J. Holloway, South Charleston: Lewis N. Fox, MacArthur: William H. Harriman, Jr., Terra Alta: Charles R. Jarrell, Huntington: Kenneth B. Lauren, West Union: Hiram Sizemore, Jr., Shepherdstown: Frederick A. Spencer, Jr., Salem: L. Mildred Williams, Charles Town, and Lacey S. Wornal, Lewisburg.

United Mine Workers Welfare and Retirement Fund: Thomas P. Long, Man, Chairman: Arthur A. Carr, Welch: Ray A. Harron, Bridgeport: John M. Hartman, Charleston: John William Kennard, Wheeling: Elbert Leon Linger, Clarksburg: Lawrence B. Thrush, Clarksburg, and Lee B. Todd, Quinwood.

Vocational Rehabilitation: Robert L. Ghiz, Charleston, Chairman: Carrel M. Caudill, Charleston: Terrell Coffield, New Martinsville: Creel S. Cornwell, Jr., Clarksburg: Colin M. Craythorne, Huntington: Charles R. Loar, Parkersburg: Robert W. Lowe, Huntington: Tony C. Majestro, Charleston: Joseph T. Mallamo, Fairmont: Eric Radin, Morgantown: Diane E. Shafer, Williamson: Ralph S. Smith, Jr., Charleston: William H. Wanger, Beckley, and R. James Yates, Beckley.

Medical Education and Hospitals

William O. McMillan, Jr., Charleston, Chairman: Warren Point, Charleston, Vice Chairman: Charles E. Andrews, Morgantown: Leo H. T. Bernstein, Martinburg: Thomas J. Beynon, Weirton: William H. Carter, Charleston: T. H. Chang, Clarksburg: John S. Cook, Welch: Robert W. Coon, Huntington: Creel S. Cornwell, Jr., Clarksburg: Jack E. Cox, Fairmont: C. Richard Daniel, Beckley: Del Roy R. Davis, Kingwood: Thomas O. Dotson, White Sulphur Springs: William J.

Echols, Huntington; T. Keith Edwards, Bluefield; Albert C. Esposito, Huntington; Alfred D. Chaphery, Wheeling; George M. Kellas, Wheeling; George S. Kosar, Weirton; Mary Lou L. Lewis, Charleston; David Z. Morgan, Morgantown; Thomas W. Mou, Charleston; Maurice A. Mufson, Huntington; Dennis S. O'Connor, Huntington; R. Wade Ortel, Wheeling; John F. Otto, Huntington; Herbert H. Pomerance, Charleston; Jeffrey S. Schultz, Wheeling; L. Dale Simmons, Clarksburg; Robert L. Smith, Morgantown; Michael M. Stump, Elkins; Charles W. Thacker, Parkersburg; John W. Traubert, Morgantown; C. Carl Tully, South Charleston; Charles E. Turner, Huntington, and R. James Yates, Beckley.

Medical Emergencies and Civil Defense

Jack Leckie, Huntington, Chairman; Jack R. Page, Charleston, Vice Chairman; Adla Adi, Charleston; John V. Brannon, Bridgeport; Frederick M. Cooley, Charleston; William D. Crigger, South Charleston; Thomas O. Dickey, Wheeling; Henry R. Glass, Jr., Charleston; John Battle Haslam, Charleston; James C. Hazlett, Wheeling; James S. Kessel, Ripley; Jules F. Langlet, Charles Town; Hugh A. Lindsay, Morgantown; Walter H. Moran, Jr., Morgantown, and William E. Walker, Huntington.

Medical Scholarships

John Mark Moore, Wheeling, Chairman; R. L. Chamberlain, Buckhannon; Marshall J. Carper, South Charleston; Robert D. Hess, Clarksburg; Thomas J. Holbrook, Huntington; James T. Hughes, Ripley; Kenneth G. MacDonald, Sr., Charleston; William L. Mossburg, Fairmont, and Clark K. Sleeth, Morgantown.

Mental Health

Roy A. Edwards, Jr., Huntington, Chairman; Greenbrier Almond, Buckhannon; Mildred Mitchell-Bateman, Huntington; Donald C. Carter, Morgantown; Ray S. Greco, Weirton; David P. Hill, Wheeling; Florence K. Hoback, Huntington; James Paul Markham, Clarksburg; William B. Rossman, Charleston; Wilbur Z. Sine, Morgantown; Larry C. Smith, Huntington; Ralph S. Smith, Jr., Charleston; James S. Stevenson, Morgantown; David K. Walker, Charleston, and Charles C. Weise, Charleston.

Military Medical Affairs

Bert Bradford, Jr., Charleston, Chairman; David R. Hess, Bridgeport, and James K. Sexton, Charleston.

Annual Meeting Program

Carl J. Roncaglione, South Charleston, Chairman; Jean P. Cavender, Charleston; Thomas P. Long, Man; David Z. Morgan, Morgantown; Kenneth Scher, Huntington, and Harry Shannon, Parkersburg.

Public Service

Stephen D. Ward, Wheeling, Chairman; C. R. Davisson, Weston; Leonard M. Eckmann, South Charleston; G. Thomas Evans, Fairmont; Louis W. Groves, Jr., Richwood; N. B. Groves, Martinsburg; Thomas P. Long, Man; Charles F. McCord, Welch; L. J. Pace, Princeton; Harry Shannon, Parkersburg; Jack J. Stark, Belpre, Ohio, and A. J. Weaver, Clarksburg.

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Rural Health

N. Allen Dyer, Lashmeed, Chairman; Harold D. Almond, Buckhannon; Ralph H. Boone, Sistersville; David R. Chapman, Keyser; Lemoyne Coffield, New Martinsville; Robert W. Coplin, Elizabeth; Earl L. Fisher, Gassaway; Asel P. Hatfield, Harrisville; Joe N. Jarrett, Oak Hill; Charles T. Lively, Weston; Charles J. Sites, Franklin, and Mark S. Spurlock, Logan.

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Thomas L. Thomas, Wheeling, Chairman; R. J. Bailey, Parkersburg; Hugh M. Brown, Clarksburg; Thomas G. Folsom, Huntington; Peter A. Haley, Charleston; Grover C. Hedrick, Jr., Beckley; Mary Jordan, Fairmont, and Eli J. Weller, Weirton.

Tuberculosis

Harry K. Tweel, Huntington, Chairman; Charles E. Andrews, Morgantown; Robert M. Biddle, Parkersburg; Dominic J. Gaziano, Charleston; Ralph H. Nestmann, Charleston; Morris H. O'Dell, Charleston; Robert J. Reed III, Wheeling; James H. Walker, Charleston; Herbert E. Warden, Morgantown, and George L. Zaldivar, Charleston.

Venereal Disease

Page H. Seekford, Charleston, Chairman; N. H. Dyer, Princeton; Daniel A. Mairs, Charleston; Frank M. Peck, Huntington; David S. Pugh, Chester; Thomas L. Thomas, Wheeling; Lyle D. Vincent, Parkersburg; K. William Waterson, Wheeling, and Isaiah A. Wiles, Morgantown.

AMA-ERF

Harry Shannon, Parkersburg, Chairman; Russell R. Brandon, Chesapeake, Ohio; Robert W. Coon, Huntington; John E. Echols, Richwood; John H. Gile, Parkersburg; Joseph Gilman, Clarksburg; Joe N. Jarrett, Oak Hill; M. Bruce Martin, Huntington; William T. Lawson, Fairmont; David Z. Morgan, Morgantown; Donald R. Roberts, Elkins; George A. Shawkey, Charleston; John W. Trenton, Kingwood, and E. Andrew Zepp, Martinsburg.

WVU Medical Liaison

James L. Bryant, Clarksburg, Chairman; Kenneth J. Allen, Glen Dale; Dewey F. Bensenhaver, Petersburg; W. T. Booher, Jr., Wellsburg; K. Douglas Bowers, Jr., Morgantown; A. Kyle Bush, Philippi; James William Campbell, Wheeling; Terrell Coffield, New Martinsville; C. Richard Daniel, Beckley; Del Roy R. Davis, Kingwood; G. Thomas Evans, Fairmont; John M. Grubb, Point Pleasant; Carl B. Hall, Charleston; J. C. Huffman, Buckhannon; Joe N. Jarrett, Oak Hill; Kenneth G. MacDonald, Sr., Charleston; Ross E. Newman, Mullens; Russell A. Salton, Williamson; David A. Santrock, Charleston; Robert G. Shirey, Ronceverte; John W. Traubert, Morgantown; Herbert E. Warden, Morgantown, and J. Hugh Wiley, Morgantown.

Marshall Medical Liaison

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Physician Services

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Long Range Planning

Richard E. Flood, Weirton, Chairman; L. Walter Fix, Martinsburg; John A. Mathias, Buckhannon; Louis C. Palmer, Bridgeport; Harry Shannon, Parkersburg, and Stephen D. Ward, Wheeling.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal).

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25301; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

Oct. 10, Morgantown, Acute Bronchitis and Asthma

Oct. 15-16, Morgantown, 7th Annual Hal Wanger Family Practice Conference

Oct. 17, Morgantown, Orthopedics for the Family Practitioner

Oct. 31, Morgantown, Urinary Tract Infection, Prostatic Hyperplasia, Chronic Airway Obstruction

Nov. 6, Morgantown, Internal Medicine Day

Nov. 7, Morgantown, Congestive Heart Failure, Coronary Atherosclerosis, Angina Pectoris

Nov. 13-14, Morgantown, Sports Medicine Symposium

Nov. 14, Morgantown, Pneumonia; Diabetes Mellitus—Adult Onset; Noninfectious Gastroenteritis and Colitis

Dec. 5, Charleston, Arthritis Foundation—Scientific Meeting

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, Upshur-Buckhannon Middle School, 3rd Thursday, 7-9 P. M.—Oct. 15, "Management of Emergency Psychiatric Depression," Sid Lerfald, M. D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M.—Oct. 14, "Clinical and Personal Management of Asthma," Dominic Gaziano, M. D.; Elizabeth Annie, R.N., and John Carlson.

Nov. 11, "Newer Developments in Health Supervision of Children, Including Immunization," Herbert Pomerance, M. D.

Dec. 9, "Guidelines and Protocols for Establishing a Prenatal Clinic in a Primary Care Center" (speakers to be announced).

Madison, Madison-Danville Junior High School, West Madison, 2nd Tuesday, 7-9 P.M.—Oct. 13, "Treatment of Arthritis, With Attention to Newer Anti-Arthritic Agents," Paul D. Saville, M. D.

Oak Hill, Oak Hill High School (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M.—Oct. 27, "Common Dermatological Problems," Robert Point, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 11 A. M.-1 P. M.—Oct. 21, "Pediatric Infectious Diseases," Edwin Anderson, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M.—Oct. 28, "Review of Cancer Screening & Chemotherapy Efficacy, With Implications for Management & Referral," Steven Jubelirer, M. D.

Williamson, Appalachian Power Auditorium, 1st Thursday, 6-8 P. M.—Oct. 1, "Update on Pediatric Medicine at the Primary Care Level," Herbert Pomerance, M. D.

Specially Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Charleston, WVU Educational Building, 12-5 P. M., Oct. 28, "Beyond the Physical Diagnosis: Behavioral Health in the Primary Care Setting," co-sponsored by West Virginia Department of Health. A statewide continuing education program for physicians and other health professionals practicing at the primary care level. Topics: "Adolescence," "Depression," and "Drug Use and Abuse."

Martinsburg, Old National Bank Building, King and Queen Streets, 7-9 P. M., Oct. 22, "Clinical and Personal Management of Asthma," N. LeRoy Lapp, M. D. Co-sponsored by American Lung Association of West Virginia.

Wheeling, Wilson Lodge of Oglebay Park, 9 A. M.-5 P. M., Nov. 7, "Anxiety: The Therapeutic Dilemma," Martin Kommor, M. D., Moderator. Co-sponsored by WVU Department of Behavioral Medicine. (Lunch provided free to participants by Abbot Laboratory).

Sports Champions Crowned At Annual Meeting

Dr. Joseph T. Mallamo, Fairmont surgeon, was winner of the Medical Golf Tournament held during the State Medical Association's Annual meeting at the Greenbrier in White Sulphur Springs in August.

Doctor Mallamo had an 18-hole low gross score of 78.

Winning the women's golf competition was Mrs. John B. Markey of Charleston.

Winners of the men's doubles tennis competition were Drs. Prospero B. GoGo of Beckley and Francisco D. Sabado, Jr., of Martinsburg, with the team of Drs. Iligino Salon of Beckley and Yong Don Joo of Summersville in the runnerup role.

In women's tennis play, Mrs. William J. Echols of Huntington and Mrs. A. Robert Davies of Troy, Ohio, made up the winning doubles team.

McDonough Supports Program

McDonough Caperton Shepherd Association Group has joined contributors to support of the scientific program offered as part of the State Medical Association's 114th Annual Meeting at the Greenbrier in August.

McDonough Caperton Shepherd has been the Association's insurance consultant and administrator for several programs for the physician membership for 37 years. The group currently is managing general agent for the Association-endorsed professional liability program for which CNA is the carrier.

Other contributors to support of the scientific program were listed in the August issue of *The Journal*, and in the official convention program.

Prostatic Carcinoma, Thyroid Mid-Winter Topics

Prostatic carcinoma and thyroid disorders will be discussed during the 15th Mid-Winter Clinical Conference to be held in Charleston next January 22-24, it was announced by the Program Committee.

The annual continuing medical education program is sponsored by the State Medical Association and the Marshall University and West Virginia University Schools of Medicine.

D. Franklin Milam, M. D., WVU Professor of Surgery and Chairman of the Department of Urology, will be one of two speakers on prostatic carcinoma during the Saturday afternoon session on "Current Controversies in Medicine." A radiation oncologist tentatively is scheduled as the other speaker.

It also was announced that Richard E. Kleinmann, M. D., of Charleston will be one of two speakers on "Diagnosis and Treatment of Functional Disorders of the Thyroid" during the Sunday morning, January 24, session. Doctor Kleinmann is Assistant Professor of Medicine at WVU Charleston Division.

The conference, again to be held at the Holiday Inn Charleston House, will begin Friday afternoon, January 22, with talks on current diagnostic procedures in heart disease, followed that evening by a physicians' session presented by the West Virginia Medical Institute, Inc., and a concurrent public session on food additives.

D. Franklin Milam, M. D.

Richard E. Kleinmann, M. D.

The program also will include the subjects of food additives, repeated for physicians Saturday morning; problems of the elderly, also Saturday morning; and high-risk mothers, Sunday morning.

As announced previously, N. LeRoy Lapp, M. D., of Morgantown and another physician will address the topic of "Pneumoconiosis-Occupational Lung Disease (Black Lung Controversy)" during the Saturday afternoon session on "Current Controversies in Medicine;" and Herbert H. Pomerance, M. D., of Charleston will speak on "Recognition and Management of High-Risk Infants" Sunday morning.

The Program Committee, again headed by Drs. Joseph T. Skaggs and Ralph H. Nestmann,

In the left photo, William L. Furlow, M. D. (left), Rochester, Minnesota, lead speaker for the first general session of the State Medical Association's Annual Meeting in August, checks the program with Stanley J. Kandzari, M. D., Morgantown, moderator. In the right photo, the Rev. Harold Wilke (center) of White Plains, New York, who spoke on the handicapped during the first general session, talks with Charles R. Lewis (left), Charleston, the Association's Executive Secretary, and Joe N. Jarrett, M. D., Oak Hill.

both of Charleston, will be providing more details as to specific subjects and speakers in upcoming issues of *The Journal*.

At WVU Since 1960

Doctor Milam, a native of Sissonville, has held a teaching position at WVU Medical Center since 1960. He was named Professor of Surgery and Founding Chairman, Division of Urology, in 1963; and Chairman, Department of Urology, in 1979.

Among numerous appointments, he has served as President of the Mid-Atlantic Section, American Urological Association; President of the State Medical Association's Section on Urology; Chairman of the Southern Medical Association's Section on Urology; and a member of the American College of Surgeons Advisory Committee.

Doctor Milam was graduated from WVU and received his M. D. degree in 1944 from the University of Pennsylvania where he also completed an internship and residency training. He held teaching positions at the University of Pennsylvania and Creighton University School of Medicine in Omaha, Nebraska, and then practiced in Charleston before going to WVU, as noted, in 1960.

A Diplomate of the American Board of Urology and a Fellow of the American College of Surgeons, he has been an exhibitor or co-exhibitor in 11 scientific exhibits at state, regional and national meetings during his career.

Doctor Kleinmann, certified by the American Board of Internal Medicine, is a native of Cleveland, Ohio. He was graduated from the University of Pennsylvania and received his M. D. degree in 1973 from that institution's School of Medicine.

Endocrinology Fellowship

He interned and completed a residency in medicine at the State University of New York Upstate Medical Center in Syracuse, served with the U. S. Public Health Service in Boston for two years, and then completed a two-year fellowship (1980) in endocrinology at the University of Massachusetts Medical School.

Doctor Kleinmann, the co-author of 12 scientific publications and abstracts, was appointed to his post at WVU this year.

The program meets the criteria for 13 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association, and also is expected to be approved for Prescribed credit by the American Academy of Family Physicians.

A registration fee of $50 will be charged all registrants except nurses, medical students, interns and residents. For advance registration, make checks payable to West Virginia State Medical Association, and mail to the Association at P. O. Box 1031, Charleston 25324.

Also serving on the Program Committee are Drs. William O. McMillan, Jr., Charleston; Maurice A. Mufson, Huntington; Robert L.

Shown in the left photo are speakers on rehabilitation during the first general session of the Association's convention in August, Ralph H. Nestmann, M. D. (center), and Leslie F. McCoy, M. D. (right), both of Charleston. Keith Hamilton (left), South Charleston, Job Placement Specialist for the Deaf, West Virginia Division of Vocational Rehabilitation, served in a "role-playing" capacity for the discussion. In the right photo are Rudolf K. Lemperg, M. D. (left), Morgantown, speaker on bone tumors during the second general session, and T. Keith Edwards, M. D., Bluefield, moderator and Chairman of the 1981 Program Committee.

Smith, Morgantown, and C. Carl Tully, South Charleston.

The Committee also is receiving continuing assistance from WVU Charleston Division staff members J. Zeb Wright, Ph.D., Coordinator of Continuing Education, Department of Community Medicine; and Sharon A. Hall, Conference Coordinator.

Cardiac Rehabilitation Topic For Huntington Program

A Cardiac Rehabilitation Conference will be presented by Marshall University's School of Medicine, the Cabell-Huntington Hospital and the Vocational Rehabilitation Division, West Virginia Board of Vocational Education, on Friday and Saturday, October 16-17.

The conference, which will be held at Marshall's Memorial Student Center, will begin at noon Friday, October 16, with registration, followed by an introductory session.

The sessions will be open to physicians, nurses, physician assistants, resident physicians and students as well as to vocational rehabilitation counselors.

Seven hours of American Medical Association Category 1 credit will be offered to physicians through the School of Medicine; and continuing education units (CEUs) will be offered to nonphysicians through the university.

Dr. William J. Echols, MU School of Medicine Clinical Instructor in Medicine, will be the conference moderator. The sessions will cover such topics as psychosocial problems in cardiac patients, management of angina, stress testing and exercise prescriptions, patient rehabilitation following cardiac surgery, and trends in rehabilitation programs and counseling.

Registration Fees

Friday evening's activities will include a social hour and a $15-per-plate banquet at the Gateway Holiday Inn. The registration fee, which covers credit application, syllabus and Saturday breakfast, will be $60 for physicians; $25 for nurses, physician assistants, counselors and others; and $7.50 for residents and students.

Additional information on the program and registration details may be obtained by contacting the MU CME Director, C. W. Jones, Ph. D., at (304) 526-0515.

Members of the conference faculty will include:

Dr. John P. Boineau, Director, Cardiac Rehabilitation for the Augusta (Georgia) Veterans Administration Medical Center and Professor of Medicine at the Medical College of Georgia; Dr. Mel Stern, Associate Clinical Professor of Medicine and Psychiatry at George Washington University; Dr. Patricia Eisenman, MU Associate Professor of Health, Physical Education and Recreation; Dr. J. D. Harrah, MU Professor of Surgery;

Jack Jones, Executive Director, Huntington YMCA; Dr. Leslie F. McCoy, MU Clinical Assistant Professor of Community Medicine and former Medical Director, West Virginia Vocational Rehabilitation Division; H. Meador, registered nurse with Cabell-Huntington Hospital's Cardiac Rehabilitation Program; Geoffrey R.

In the left photo, answering questions for physicians following his talk on malpractice during the second general session of the Association's convention in August is Eric W. Springer, left, Pittsburgh attorney. One of the listeners is George A. Shawkey, M. D., Charleston (right, rear). On the right, L. Walter Fix, M. D., then Association President, is shown with Leonard M. Davis, Ph.D., left, Morgantown, who spoke on communication and malpractice during the second general session.

Mohn, Counselor, West Virginia Vocational Rehabilitation Division; Dr. Robert J. Marshall, MU Clinical Professor of Medicine; Dr. Frank Rivas, Huntington cardiologist, and Dr. William S. Sheils, MU Clinical Assistant Professor of Medicine.

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Current Surgical Diagnosis and Treatment, 5th Edition, Edited by J. Englebert Dunphy, M. D.; and Lawrence W. Way, M. D. 1138 pages. Price $25. Lange Medical Publications, Los Altos, California 94022. 1981.

Review of Medical Physiology, 10th Edition, by William F. Ganong, M. D. 628 pages. Price $17. Lange Medical Publications, Los Altos, California 94022. 1981.

Harper's Review of Biochemistry, 18th Edition, by David W. Martin, Jr., M. D.; Peter A. Mayes, Ph.D., D.Sc.; and Victor W. Rodwell, Ph.D. 614 pages. Price $18. Lange Medical Publications, Los Altos, California 94022. 1981.

Goal-Setting, Involvement Urged By President

John B. Markey, M. D., who assumed the Presidency of the West Virginia State Medical Association on August 22 in White Sulphur Springs, lost no time in challenging his colleagues in the 2,150-member organization.

In brief remarks after taking his oath of office, Doctor Markey said Association committees would be expected to develop position papers for presentation to Council so that the organization's posture and goals on various issues are clear.

The Charleston surgeon said he also would direct heavy emphasis on "convincing members that the Association is what they make it." The simple payment of membership dues, Doctor Markey said, "is not enough."

As he began his term, Doctor Markey had the following expression of good will from the medical staff of Charleston Area Medical Center, where he has served as Chief of Staff:

"On behalf of the Medical Staff of Charleston Area Medical Center, I wish to congratulate you on your election to the State Medical Society's highest office. You are certainly very deserving of this honor. We wish you well in the coming year."

The telegram was signed by James K. Sexton, M. D., Chief of the Medical Staff.

In the left photo, Frank J. Holroyd, M. D. (center), Princeton, and Richard E. Flood, M. D. (right), Weirton, get acquainted with Percy Wootton, M. D., President of the Medical Society of Virginia, prior to a session of the State Medical Association's House of Delegates during the Association's Annual Meeting in August. Doctor Holroyd was re-elected as a Delegate to the American Medical Association during the convention, with Doctor Flood being the other AMA Delegate. In the right photo, Stephen D. Ward, M. D., Wheeling, 1980-81 Chairman of the Association's Council, presents the Past President's Plaque to L. Walter Fix, M. D., Martinsburg, retiring President, during the second and final House session.

Mrs. Logan W. Hovis Installed As Auxiliary President

Mrs. Logan W. Hovis of Vienna assumed the presidency of the Auxiliary to the West Virginia State Medical Association at the group's 57th Annual Meeting at the Greenbrier in White Sulphur Springs, August 20-22.

Mrs. Hovis was installed by Mrs. Harry S. Dvorsky of San Leandro, California, President of the Auxiliary to the American Medical Association, who was an honor guest.

Mrs. Logan W. Hovis

Mrs. Hovis' husband is an anesthesiologist.

The Auxiliary elected Mrs. Richard S. Kerr of Morgantown as President Elect and the following additional officers:

Mrs. Herbert E. Warden, Morgantown, Vice President; Mrs. Charles C. Weise, Charleston, Recording Secretary; Mrs. Joseph C. Woofter, Parkersburg, Corresponding Secretary; Mrs. T. Keith Edwards, Bluefield, Treasurer; Mrs. J. L. Mangus, Charleston, Parliamentarian;

Mrs. Antonio S. Licata, Weirton, Northern Regional Director; Mrs. Harvey D. Reisenweber, Martinsburg, Eastern Regional Director; Mrs. Owen C. Meadows, Jr., Daniels, Southern Regional Director; Mrs. William M. Jennings, Huntington, Western Regional Director, and Mrs. Robert E. Sams, Reedsville, Ohio, Central Regional Director.

Committee Appointments

Mrs. Hovis also announced these appointments of committee chairmen:

Mrs. Richard S. Kerr, Morgantown, Membership; Mrs. Herbert E. Warden, Morgantown, Members-at-Large; Mrs. Robert S. Robbins and Mrs. John W. Kennard, both of Wheeling, AMA-ERF; Mrs. Harry Shannon, Parkersburg, Legislation; Mrs. L. Walter Fix and Mrs. Francisco D. Sabado, Jr., both of Martinsburg, and Mrs. George Naymick, Newell, Health Careers Loan Fund; Mrs. M. Bruce Martin, Huntington, and Mrs. J. L. Mangus, Charleston, Long Range Planning;

Mrs. M. Bruce Martin, Huntington, Press and Publicity; Mrs. Charles E. Turner, Huntington, News Bulletin Editor; Mrs. Harry K. Tweel, Huntington, News Bulletin Circulation; Mrs. Robert D. Hess, Bridgeport, Archives and Historian; Mrs. George A. Shawkey, Charleston, Necrology; Mrs. J. Dennis Kugel, Charleston, Finance; Mrs. Herman Fischer, Bridgeport, Bylaws and Handbook; Mrs. George A. Curry, Morgantown, Southern Medical Councilor; Mrs. Winfield C. John, Huntington, Southern Medical Vice Councilor; Mrs. J. L. Mangus, Charleston, Convention;

Mrs. Harry S. Weeks, Jr., Wheeling, WESPAC; Mrs. Gary G. Gilbert, Huntington, Past President on Board; Mrs. M. V. Kalaycioglu, Shinnston, Shape Up for Life Auxiliary Theme; Mrs. D. Sheffer Clark and Mrs. Donald S. Robinson, both of Huntington; Mrs. T. Ray Perrine, Charleston, Mrs. Anthony G. DiBartolomeo, Morgantown, and Mrs. Jeffrey S. Shultz, Wheeling, Spouse Liaison; and Mrs. Aristotle Rabanal, Clarksburg, Liaison to Physician Services Committee.

Nurse Anesthetist

Mrs. Hovis (Alice) currently is President of the West Virginia Association of Nurse Anesthetists.

She was President of the Auxiliary to the Parkersburg Academy of Medicine from 1977 to 1979, and has served on its Board since 1973. She served two years as Central Regional Director on the State Auxiliary Board before becoming President Elect last year.

Shown above are some of the new offcers of the Auxiliary to the State Medical Association elected during the Auxiliary's annual meeting in August. Seated, from left, are Mrs. T. Keith Edwards, Bluefield, Treasurer; Mrs. Logan W. Hovis, Vienna, President, and Mrs. Richard S. Kerr, Morgantown, President Elect; standing, from left, Mrs. Charles C. Weise, Charleston, Recording Secretary; Mrs. Antonio S. Licata, Weirton, Northern Regional Director; Mrs. Owen C. Meadows, Jr., Daniels, Southern Regional Director; Mrs. Harvey D. Reisenweber, Martinsburg, Eastern Regional Director; Mrs. Robert E. Sams, Reedsville, Ohio, Central Regional Director; and Mrs. William M. Jennings, Huntington, Western Regional Director.

Born in Charleston, Mrs. Hovis has lived in the Parkersburg area since age six. She is a graduate of St. Joseph's School of Nursing and School of Nurse Anesthesia in Parkersburg.

Mrs. Hovis is the mother of one son, Mark Leonhart, a student at West Virginia University; and Doctor Hovis has three daughters, Sally Welsh, Houston, Texas; Jacqueline Hovis, Craig, Colorado, and Julie Anne Hovis, Gainesville, Florida.

Family Practice Conference Set For Morgantown

A variety of papers will be presented by 19 physicians for the seventh annual Hal Wanger Family Practice Conference October 15-17 at the West Virginia University Medical Center Auditorium in Morgantown.

Sponsors are the WVU School of Medicine's Department of Family Practice and Office of Continuing Medical Education; and the West Virginia Chapter of the American Academy of Family Physicians.

The conference meets the criteria for 14 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association; is acceptable for 14 Prescribed hours by the AAFP; and is approved for 1.4 Continuing Education Units.

The Thursday, October 15, program, beginning with registration at 8 A. M., will include the following speakers (WVU faculty members except where noted) and topics:

"Peri-Anal Problems" — James W. Manier, M. D., Professor of Medicine and Chief, Division of Gastroenterology; "The Child with a Limp" —Eric T. Jones, M. D., Assistant Professor of Orthopedics; "Toxic Shock Syndrome"—Michael J. Lewis, M. D., St. Marys, Clinical Assistant Professor, Family Practice; "Advantages of Good Diabetic Control"—Manuel Tzagournis, M. D., Acting Dean and Professor of Medicine, Ohio State University School of Medicine;

"Lumps and Bumps in Kids"—Ellen Hrabovsky, M. D., Associate Professor of Surgery; "Managing Lower Extremity Injuries"—Justus C. Pickett, M. D., Professor of Orthopedics; and "Legionnaire's Disease"—John J. Barry, M. D., Fellow, Infectious Disease, University of Vermont Medical Center.

Speakers for the Friday morning session will be Drs. David Z. Morgan, Professor of Medicine and Associate Dean, "Who Benefits from By-Pass Surgery;" David E. Swanson, Assistant Professor of Ophthalmology, "Laser Therapy for Retinal Disease;" David A. Labosky, Assistant Professor of Orthopedics, "Management of Hand Injuries," and Gary T. Raflo, Assistant Professor of Ophthalmology, "Management of Eye Trauma."

A panel presentation and discussion on "Gastroenterology Update" will be held during lunch.

Friday afternoon topics and speakers will be:

"Diverticular Diseases" — Catalino B. Mendoza, Jr., M. D., Clarksburg, Clinical Associate

The Publication Committee of the State Medical Association met during the Association's Annual Meeting in August. From left, are Drs. Thomas J. Holbrook, Huntington; David Z. Morgan, Morgantown, and Vernon E. Duckwall, Elkins, Associate Editors of The West Virginia Medical Journal; Stephen D. Ward, Wheeling, Editor; L. Walter Fix, Martinsburg, Associate Editor; Charles R. Lewis, Charleston, the Association's Executive Secretary and Managing Editor and Business Manager for The Journal, and Dr. Joe N. Jarrett, Oak Hill, Associate Editor. Not shown is Dr. John M. Hartman, Charleston, Associate Editor.

Professor of Medicine; Duane D. Webb, M. D., Chief of Medicine, Huntington Veterans Administration Hospital, and Assistant Professor of Medicine and Chief, Division of Gastroenterology, Marshall University School of Medicine; and Dennis P. Sweeney, M. D., Assistant Professor of Medicine (moderator);

"Esophageal Varices"—Donald E. McDowell, M. D., Associate Professor of Surgery; Doctor Manier; and Ronald D. Gaskins, M. D., Associate Professor of Medicine (moderator); and "Colon Polyps"—Michael A. Grant, M. D., Assistant Professor of Surgery; Larry D. Blessing, M. D., Assistant Professor of Surgery, and Alvin L. Watne, M. D., Professor and Chairman of Surgery (moderator).

The conference will end Saturday following an 8:30 A. M. session on "Orthopedic Practicum," a "hands on" practicum on the use of splints and braces, and the application of casts for orthopedic problems in primary care. Orthopedic Surgery and Family Practice staffs will conduct the session.

Graduate Medical Education Funds Go To Marshall

Marshall University's School of Medicine has received $475,000 from the Claude Worthington Benedum Foundation for a special graduate medical eduation program, MU President Robert B. Hayes and School of Medicine Dean Robert W. Coon, M. D., announced jointly.

The funds are earmarked for continued development of the school's Combined Residency/Practice Program over the next two and one-half years. Previously, the Benedum Foundation awarded the school $100,100 to assist in establishing the new residency program.

Offered in Family Practice, Internal Medicine, Obstetrics/Gynecology, Pediatrics and Psychiatry, it is a five- or six-year program, depending on the specialty selected, which consists of alternating periods of residency study and community practice.

Sections, Societies Choose Leaders For New Year

Several sections and societies affiliated with the West Virginia State Medical Association elected or re-elected officers during meetings held in conjunction with the Association's Annual Meeting at The Greenbrier in August.

The Section on Surgery renamed Dr. Robert J. Reed III of Wheeling as its Chairman.

Appointed by the West Virginia Radiological Society were Dr. John W. Kennard of Wheeling, President; Dr. Johnsey L. Leef, Jr., of Charleston, Vice President, and Dr. Orlando F. Gabriele of Morgantown, Secretary-Treasurer.

The newly formed West Virginia Gastrointestinal Society's officers are Dr. James W. Manier of Morgantown, President; Dr. Catalino B. Mendoza, Jr., Clarksburg, President Elect, and Dr. Dennis P. Sweeney of Morgantown, Secretary-

L. Walter Fix, M. D., Martinsburg, in the left photo, 1980-81 President of the State Medical Association, congratulates John B. Markey, M. D. (left), Charleston, prior to administering the oath of office to Doctor Markey, the Association's new President, during the second and final House of Delegates session of the Association's convention in August. On the right, Doctor Markey is shown with his family. From left, are Barbara Markey, Doctor Markey, Mrs. Markey (Betty) and Sandy Markey.

Treasurer. Dr. William O. McMillan, Jr., of Charleston and Dr. Richard F. Carter of White Sulphur Springs are members of the Board.

The Section on Orthopedic Surgery elected Dr. Larry J. Stemple of Morgantown as President and Dr. Darrell C. Belcher of Princeton as Vice President. Dr. Arthur A. Abplanalp of Charleston was re-elected Secretary-Treasurer.

The Section on Urology continued Dr. Stanley J. Kandzari of Morgantown as its President and Dr. John A. Belis, also of Morgantown, as Secretary-Treasurer pending an election next spring.

Dr. Richard A. Hawkins of Charleston was designated Executive Secretary by the Section on Dermatology.

Other section and society officers will be listed in *The Journal* as the information becomes available. Many of the groups, however, hold elections at other meetings during the year.

Council Sets 1982 Meeting For The Greenbrier

The State Medical Association's Council voted at its pre-convention meeting in August to accept a Greenbrier invitation to return there for the Association's 115th Annual Meeting August 26-28, 1982.

In other action, the Council:

—Welcomed as a new member Dr. Diane Shafer of Williamson, appointed to the District XIV post left vacant by the resignation of Dr. Arthur E. Levy.

—Recognized the services of Drs. Ralph W. Ryan of Morgantown, Dewey F. Bensenhaver of Petersburg, R. Paul Bennett of Webster Springs and M. V. Kalaycioglu of Clarksburg, who were ineligible for re-election this year.

—Elected as honorary members, after appropriate component society action, Drs. Karl Kastl of Charleston (Kanawha Medical Society), Alfred M. Palmer of Augusta (Potomac Valley) and R. F. Miller of Paden City (Wetzel) while also approving dues-waived status, because of illness for Dr. Gunter Schwarzbart of North Miami Beach, Florida (Harrison).

—Approved for introduction into the House of Delegates later on August 20 (the date of the Council meeting) amendments to the Association Bylaws to provide for an alternative method for collecting dues, and limiting the period for which an active Association member could serve as a Delegate to the American Medical Association.

—Heard updates in programs involving medical and physician services from Director Earl D. Wolfe of the State Division of Vocational Rehabilitation; Commissioner Gretchen Lewis of the State Workmen's Compensation Fund; Commissioner Leon Ginsberg of the State Department of Welfare; State Insurance Commissioner Richard Shaw, and Pres Jolley, Field Operations Manager for Nationwide Insurance, the Part B (physicians services) Medicare Program in West Virginia.

Emergency Medical Services Conference Planned

The fifth annual Governor's Conference on Emergency Medical Services will be held October 29-31 at the Holiday Inn in Parkersburg.

The keynote speaker will be Dr. R. A. Cowley, Maryland physician who has been called the nation's leading authority on trauma. Doctor Cowley is Director of the Maryland Institute for Emergency Medical Services System and Professor of Surgery at the University of Maryland.

His leadership in the development of the Maryland Institute for Emergency Medical Services is detailed in the current book, *Shocktrauma*, which soon is to become a movie.

The schedule includes continuing education workshops for paramedics, emergency medical technicians and trauma nurses; exhibits; and Governor's Luncheon on Friday, October 30.

The registration fee of $30 will include the luncheon. For additional information, contact Office of Emergency Medical Services, Department of Health, Room 426, Building No. 3, 1800 Washington Street, East, Charleston 25305. Telephone (304) 348-3956.

State Begins Information Service For Blind

The West Virginia Division of Vocational Rehabilitation has in operation an Information and Referral Service for blind and visually-impaired West Virginians, it was announced recently.

These individuals may call toll-free from anywhere in the state with questions about services which are available to them, products which have been modified for use by the visually-impaired, and programs of interest to people with limited vision.

The telephone number is 1-800-642-3021. Calls may be made between 8:30 A. M. and 4:45 P. M. Monday through Friday.

AMA Files Supreme Court Brief Challenging FTC Order

The assault on the American Medical Association's ethical guidelines by the Federal Trade Commission violates the First Amendment and undermines efforts to protect the public from exploitation and deception, the Association told the U. S. Supreme Court recently in a brief challenging the FTC's 1979 decision on physician advertising and contract practice. The high court is scheduled to review the case this fall.

The FTC order, issued by an FTC administrative law judge after a trial lasting almost nine months, prohibits the AMA from involving itself in advertising by physicians unless the advertising "would be false or deceptive" under the Federal Trade Commission Act, and from involving itself in the consideration provided to physicians for their services. In its brief the AMA said such a decision "could only have been made by an administrative agency with no expertise in or understanding of the practice of medicine or the market for physicians' services."

The brief points out that the FTC decision is "blatantly at odds" with a 1977 Supreme Court statement that the professions "have a special role to play" in "defining the boundary between deceptive and nondeceptive advertising" and in assuring that advertising by professionals "flows both freely and cleanly." Said the AMA, "If the commission's approach is upheld and the medical profession is forced to abdicate the field to a government agency which itself acknowledges its inability to draft precise guidelines, the real loser will be the public . . ."

No Jurisdiction

The FTC does not have jurisdiction over nonprofit professional associations, the AMA told the court. In enacting the FTC Act in 1914 Congress limited the Commission's judisdiction to traditional business entities, the brief states, and in 1977 Congress rejected the FTC attempt to expand its jurisdiction to include nonprofit organizations. The brief also charges that the FTC disapproved the AMA ethical guidelines without assessing their competitive significance, thus violating the First Amendment.

Petitioning with the AMA are the Connecticut State Medical Society and the New Haven County Medical Association, both of which also were named in the FTC's original complaint. The brief notes that defending against the FTC proceedings will divert "substantial resources" from the educational, scientific, and public health programs of the medical organizations.

Medical Meetings

Oct. 1-4—ASIM, New York City.

Oct. 3-11—Am. Assn. of Blood Banks, Chicago.

Oct. 11-16—Am. College of Surgeons, San Francisco.

Oct. 16-17—Cardiac Rehabilitation Conference (MU, Cabell-Huntington Hospital, WV Vocational Rehabilitation Division), Huntington.

Oct. 17-21—Am. Society of Anesthesiologists, New Orleans.

Oct. 20-24—Ky. Med. Assn., Louisville.

Oct. 21-25—Med. Society of Virginia, Norfolk.

Oct. 23-26—Indiana State Med. Assn., Indianapolis.

Oct. 25-29—Am. College of Chest Physicians, San Francisco.

Oct. 26-28—Am. College of Gastroenterology, Bar Harbour, Fla.

Oct. 29-31—5th Annual Governor's Conference on Emergency Medical Services, Parkersburg.

Oct. 30-31—Am. Academy of Allergy, Southeast Region (Allergy & Immunology for the Clinician), Hilton Head Island, S. C.

Oct. 31-Nov. 5—Am. Academy of Pediatrics, New Orleans.

Nov. 1-5—Am. Public Health Assn., Los Angeles.

Nov. 1-6—Am. Academy of Ophthalmol., Atlanta.

Nov. 1-6—Am. Academy of Physical Medicine & Rehabilitation, San Diego.

Nov. 3-9—Am. Med. Women's Assn., Los Angeles.

Nov. 10-14—Cancer 1981/Cancer 2001 (University of Texas M. D. Anderson Hospital & Tumor Institute), Houston.

Nov. 15-20—International College of Surgeons, Coronado, Calif.

Nov. 16-19—Am. Heart Assn., Dallas.

Nov. 21-22—National Kidney Foundation, Washington, D. C.

Dec. 4-5—Am. College of Chemosurgery, San Francisco.

Dec. 5-8—Am. Society of Hematology, San Antionio, Tex.

Dec. 5-10—Am. Academy of Dermatology, San Francisco.

1982

Jan. 22-24—15th Mid-Winter Clinical Conference, Charleston.

Feb. 3-7—Am. College of Psychiatrists, Orlando.

Feb. 25-28—AMA National Leadership Conference, Chicago.

March 5-10—Am. Society of Abdominal Surgeons, Las Vegas.

March 21-25—Am. Fertility Society, Las Vegas.

April 22-23—WV Chapter, Am. Academy of Pediatrics, Morgantown.

May 10-14 — Am. Roentgen Ray Society, New Orleans.

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WVU Medical Center
–News–

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Heart Patient Exercise Program Started

A new program of supervised exercise for persons recovering from heart attacks has been inaugurated for outpatients at WVU Hospital.

The program is a joint effort of the Section of Cardiology in the WVU School of Medicine and the University Hospital Department of Physical Therapy. It is the second phase of a cardiac rehabilitation service which begins during the patients' hospitalization with group educational and exercise sessions.

Outpatients who have had a recent myocardial infarction, coronary bypass surgery or have other types of heart ailments are eligible to enter the program. They must be patients of University Hospital's cardiology service or, if treated or diagnosed elsewhere, they first must be referred to the cardiology service for evaluation.

Each patient is screened with exercise tests to determine level of fitness, and an individualized exercise program is prescribed. Each is assessed periodically by additional testing.

Exercises begin with mild calisthenics and progress through treadmill-walking and bicycle-pedaling.

Patients are encouraged to attend three one-hour sessions each week for anywhere from two to eight weeks, depending on their recovery levels. All sessions are directed by physical therapists trained in exercise physiology and are supervised by a cardiologist.

Abnash Jain, M. D., Chief of the Section of Cardiology, and Charles Meacci, Assistant Professor of Physical Therapy, are supervisors. Also participating from Physcial Therapy are Associate Professor John Petronis and Clinical Instructor Mike Staggers.

Doctor Jain said the program is expected to serve from 100 to 150 patients a year. Four persons will be exercising during each session, and as many as four sessions a day can be scheduled if needed.

He said the Division of Cardiology had added to its faculty an assistant professor who will coordinate program activities.

"Many medical centers throughout the country have exercise programs for their heart attack patients," Doctor Jain explained. "These are especially for those with uncomplicated myocardial infarctions—uncomplicated in the sense that the attacks have not damaged too much heart muscle.

"Exercise has not been proved to increase length of life. Nothing is more devastating than having a heart attack in middle age. It changes the life style of patients, their family life and their social life in many ways."

Doctor Jain said that patients' self-image is increased by the ability to do some sort of exercise.

"They get an idea they can accomplish something," he explained. "Their self-reliance is increased. With exercise they don't gain too much weight, their blood pressure tends to remain normal and their heart rate is more steady."

Doctor Pearson Chairs Group In Preventive Medicine

John Pearson, M. D., Chairman of Community Medicine, has been named Chairman of a Task Force on Preventive Medicine Manpower of the American College of Preventive Medicine.

A recent national study showed that preventive medicine was one of four areas that were exceptions to the general finding that this country will have an oversupply of physicians by 1990.

The Graduate Medical Education National Advisory Committee predicted a 70,000 surplus at the end of the decade, with child psychiatry, emergency medicine, general psychiatry and preventive medicine the areas that will have shortages.

The task force Doctor Pearson heads will study problems in the latter field and make recommendations on how to deal with them.

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Vast Changes In Medicare, Medicaid Studied

The Administration is studying vast changes in Medicare and Medicaid as part of its preparation for the pro-competition legislative proposal scheduled to be presented before the end of the year, according to the American Medical Association. Two options under consideration are:

- Offering Medicare beneficiaries the choice of coverage through private health plans. A U.S. Department of Health and Human Services (HHS) planning paper says this approach would permit beneficiaries to choose among "more rational, improved and integrated benefit packages" than Medicare now provides.
- Offering vouchers so that beneficiaries can buy private health insurance or enroll in health maintenance organizations as an alternative to the Medicare benefit package.

The Medicaid options under consideration would promote and subsidize state experimentation with competitive strategies within the framework of the Medicaid cap; convert the current interim Medicaid cap proposal to a permanent measure; federalize Medicaid in order to institute a private-sector coverage option; and plan for the future separation of Medicaid acute care benefits into two distinct federal-state programs.

Incentive Hospital Payments

Other Medicare options being studied would introduce incentive hospital payments based on prospectively-set rates for total inpatient services per patient stay; permit the HHS Secretary to waive beneficiaries' freedom of choice in order to make bulk purchasing agreements with suppliers; and re-design the benefit and cost-sharing structure to provide greater initial cost sharing and catastrophic coverage.

An HHS spokesman stressed that no decisions have been made on any of the options. The planning paper said the basic strategic choice that must be made is whether changes in Medicare and Medicaid should "complement and follow the efforts of private buyers to promote competition in the health sector, or should the public program lead the way in promoting competition."

Presidential Task Force Eyes Regulations

Among the 30 regulations listed for scrutiny by the Presidential Task Force on Regulatory Relief are those on health planning and patient package inserts. Vice President George Bush, Chairman of the Task Force, said "regulatory relief is an integral part of President Reagan's overall economic recovery program . . . ," the American Medical Association reported.

Health planning regulations have been "costly and appear to have restrained competition within the health care industry," the task force said. Planning requires "extensive justification . . . for expansions of facilities and service, or changes in or acquisition of new equipment," the report stated. It said justifying the purchase of $150,000 of equipment can cost as much as $75,000.

The task force said important questions have been raised about the utility of patient package inserts, "since the decision to use a prescription drug is nearly always made before purchase. Costs to drug manufacturers, drug wholesalers . . . could be substantial and thus lead to increased prices for prescription drugs." The U. S. Food and Drug Administration now requires the inserts for a small group of drugs and has been considering whether to expand the requirement to all or most drugs. The regulation would involve over 120 million pieces of paper, the Task Force said.

Bush said the 30 regulations now under review are in addition to 27 identified for review in March and 34 identified in April. Murray Weidenbaum, Chairman of the President's Council of Economic Advisers, said regulatory relief is a "very undramatic program," but that it ultimately will save consumers billions of dollars.

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Rizal V. Pangilinan, M. D.

Ear, Nose & Throat:
Wilfredo A. Tiu, M. D.

Orthopedic Surgery:
Edgar L. Barrett, M. D.
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Terry Athari, M. D.
James W. Campbell, M. D.

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John P. Franz, M. D.

Dermatology:
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Marion H. Drews, M. D.

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David Hill, M. D.

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ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS

Obituaries

BILL B. RICHMOND, M. D.

Dr. Bill B. Richmond of Beckley, a urologist, died on August 8 in a hospital there. He was 63.

Doctor Richmond was a former member of the West Virginia State Medical Association and a Past President of the Raleigh County Medical Society. He also specialized in nuclear medicine.

Survivors include the widow: three sons, Edward Richmond of Beckley, James Richmond of Morgantown and Billy B. Richmond, Jr., of Pensacola, Florida; and one daughter, Elizabeth Taylor of Iowa City, Iowa.

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Contact: E. G. Kreider, M. D.
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CYCLAPEN-W (cyclacillin)

Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and pharyngitis (caused by Group A beta hemolytic streptococci)
Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae*.*
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta hemolytic streptococci and staphylococci (non-penicillinase producers)
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially, and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications: Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings: Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in *vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions: Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions: Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia, and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy, generally continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta hemolytic streptococcal infections, at least 10 days treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure: Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage: (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q. 6 h	body weight 20 kg (44 lbs): 125 mg q. 6 h body weight > 20 kg (44 lbs): 250 mg q. 6 h
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q. 6 h	50 mg/kg/day q. 6 h
Chronic Infections	500 mg q. 6 h	100 mg/kg/day q. 6 h
Otitis Media	250 mg to 500 mg q. 6 h	50 to 100 mg/kg/day
Skin & Skin Structures	250 mg to 500 mg q. 6 h	50 to 100 mg/kg/day
Urinary Tract	500 mg q. 6 h	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
†depending on severity.

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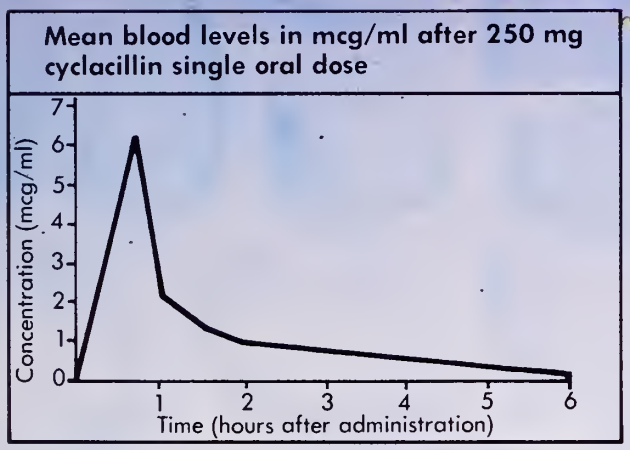
Half the dose is absorbed in 9 minutes!

compared to 32 minutes for ampicillin.*



- Rapid, virtually complete absorption from GI tract
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- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on T^{a} ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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Fewer episodes of diarrhea and rash than with ampicillin in studies to date.

Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†

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†Due to susceptible organisms.

See important information on facing page.

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NEW NAME

Resolutions

A resolution calling for appointment of a "qualified administrator holding the degree of doctor of medicine" to the Vice President for Health Sciences position at West Virginia University; and a policy statement on medical or health screening programs were adopted by the Medical Association's House of Delegates in August.

Here is the text of the resolution as approved by the House at its second meeting during the Association's August 20-22 Annual Meeting in White Sulphur Springs:

"WHEREAS, The resignation of Charles E. Andrews, M. D., effective June 30, 1981, created a vacancy in the position of Vice President for Health Sciences at West Virginia University; and

"WHEREAS, The procedure calls for the President of West Virginia University, with the endorsement of the West Virginia Board of Regents, to name a permanent successor to Doctor Andrews: and

"WHEREAS, This is a position of extraordinary importance to the quality of health care and the health of all West Virginians in the future: and

"WHEREAS, The cornerstone of any health sciences system is the preparation of physicians who can supply quality medical care; and

"WHEREAS, The long and dedicated service of Doctor Andrews has conclusively shown that a qualified administrator with a Doctor of Medicine Degree can most effectively carry out the responsibilities and duties of the Vice President for Health Sciences at West Virginia University:

"THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association strongly recommend to the President of West Virginia University, any appropriate search committee and the West Virginia Board of Regents that the Vice President for Health Sciences to be appointed at West Virginia University be a qualified administrator holding the degree of doctor of medicine."

"BE IT FURTHER RESOLVED, That a copy of this resolution be provided the President of West Virginia University: the Chairman of any search committee as appropriate, and the President of the West Virginia Board of Regents."

The House adopted the following policy statement in lieu of a resolution dealing with medical and health screening proposed by Ralph W. Ryan, M. D., of Morgantown:

"The West Virginia State Medical Association urges, in the best interest of the public health, that programs involving medical or health screening be planned carefully by sponsoring organizations to assure accurate, credible and useful evaluation of the individuals tested.

"In order to accomplish and assure the most effective such screening, component medical societies of the West Virginia State Medical Association and individual physicians are urged to become involved actively in the planning and development of community health programs."

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Necrology Report

The following is a list of West Virginia physicians whose deaths have been reported to the West Virginia State Medical Association during the past year:

1980

Aug. 21	Ralph J. Jones	Charleston
Sept. 20	R. B. Linger	Clarksburg
Sept. 22	Sanders C. Davidson	Bluefield
Sept. 27	Wayne Bronaugh	Laguna Hills, California
Oct. 1	Arthur L. Osterman	Wheeling
Oct. 4	Arnold C. Burke	South Charleston
Oct. 6	Arthur A. Smith	Charleston
Oct. 25	Ronald M. Cyphers	Athens
Oct. 27	Paul Levison	Arlington Heights, Illinois
Nov. 3	Grover B. Swoyer	Point Pleasant
Nov. 4	Joseph E. Robins, Jr.	Urbanna, Virginia
Nov. 11	Leo S. Konieczny	Huntington
Dec. 22	James H. Wolverton, Jr.	St. Petersburg, Florida

1981

Jan. 8	Elmer F. Lowry	Ashton
Jan. 17	John C. (Cam) Eakle	Sutton
Jan. 29	Harold H. Kuhn	Big Pine Key, Florida
Feb. 3	John J. Brandabur	Huntington
Feb. 17	John B. Haley	Charleston
Feb. 19	Emery D. Wise	Fairmont
Mar. 2	Basil L. Page	Buckhannon
Mar. 28	Holmes Blair	Parkersburg
Apr. 8	P. P. Ferraraccio	Bluefield, Virginia
Apr. 26	Sobisca S. Hall	Clarksburg
May 11	Charles W. Nelson, Jr.	Beckley
July 18	Buford W. McNeer	Hinton
	John McL. Adams	Ranson
	James D. Bird	Sun City, Arizona

(The deaths of the last two former members were reported to the Association in 1981; however, dates of death were unobtainable.)

Respectfully submitted,
CHARLES R. LEWIS
Executive Secretary

mwh
Charleston, WV
August 19, 1981.

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R. C. Gow, M. D. (Thomas Clinic)
S. O. Chung, M. D.
L. E. Soriano, M. D. (Marlinton Clinic)
M. C. Rosenberg, D. O. (Helvetia Clinic)
E. G. Werner, M. D. (Riverton Clinic)

EMERGENCY MEDICINE:
R. H. Plummer, D. O.
A. M. Fuller, M. D.
F. A. Khan, M. D.
D. J. Lloyd, M. D.

FAMILY PRACTICE:
L. H. Valliant, M. D.

INTERNAL MEDICINE:
Gastroenterology:
S. S. Masilamani, M. D.
Allergy & Rheumatology:
J. B. Magee, M. D.
Cardiology:
H. L. Jellinek, M. D.
R. B. Garrett, M. D.
Metabolic & Endocrine Diseases:
F. Becerra, M. D.
Pulmonary Diseases:
J. C. Arnett, Jr., M. D.

OBSTETRICS & GYNECOLOGY:
H. H. Cook, Jr., M. D.
J. F. de Courten, M. D.
J. J. Rizzo, M. D.
M. W. Strider, M. D.

OPHTHALMOLOGY:
J. N. Black, M. D.

ORTHOPAEDIC SURGERY:
J. G. Gomez, M. D.
D. R. Antonio, M. D.

OTOLARYNGOLOGY (Facial Cosmetic and Reconstructive Surgery):
J. A. Wolfe, M. D.

PATHOLOGY:
M. M. Stump, M. D.

PEDIATRICS:
Y. J. Kwon, M. D.
R. J. Haas, M. D.

RADIOLOGY:
F. H. Abdalla, M. D.
H. Y. Mang, M. D.
C. P. O'Sullivan, M. D.

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Moseley H. Winkler, M.D.
Samuel A. Strickland, M.D.

E.E.N.T.
John A. B. Holt, M.D.

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Nabil A. Ragheb, M. D.
R. Austin Wallace, M. D.

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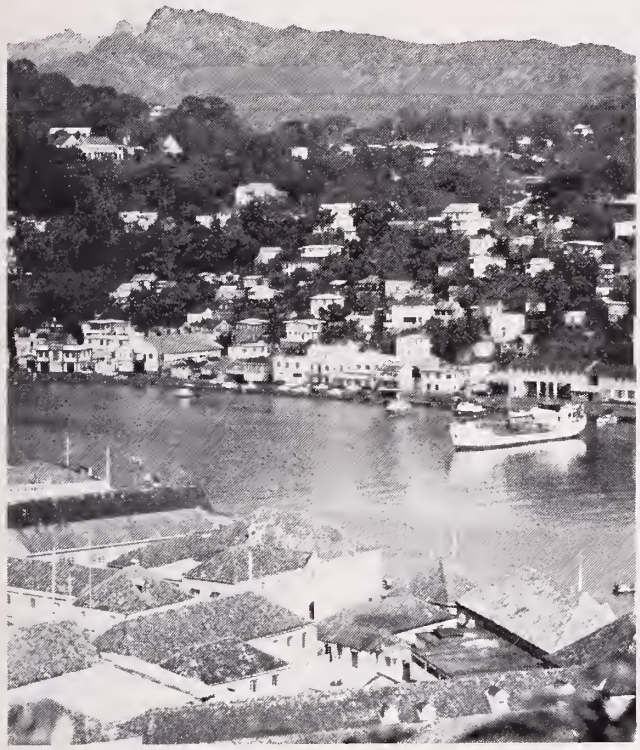

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Cabell	Robert C. Nerhood	Huntington	Maurice A. Mufson	Huntington	2nd Thurs.
Central West Virginia	John A. Mathias	Buckhannon	Joseph B. Reed	Buckhannon	As Sched.
Eastern Panhandle	Harvey D. Reisenweber	Martinsburg	Orlando I. Agnir	Martinsburg	2nd Wed.
Fayette	Daniel B. Doyle	Scarbro	Honorato M. Aguila	Oak Hill	1st Wed.
Greenbrier Valley	Richard F. Carter	White Sulphur Spgs.	Dale G. Knutson	Ronceverte	2nd Wed.
Hancock	Thomas J. Beynon	Weirton	Irwin M. Bogarad	Weirton	3rd Tues.
Harrison	Victorino D. Chin	Bridgeport	Gaspar Z. Barcinas	Bridgeport	1st Thurs.
Jefferson	Mildred L. Williams	Charles Town	Vettivelu Maheswaran	Ranson	1st Wed.
Kanawha	Echols A. Hansbarger, Jr.	Charleston	Donald E. Farmer	Charleston	2nd Tues.
Logan	Abelard A. Pelaez	Logan	Herbert D. Stern	Logan	2nd Wed.
Marion	William L. Mossburg	Fairmont	E. G. Cadogan	Fairmont	Last Tues.
Marshall	Jesus T. Ho	Moundsville	Jose J. Ventosa	Glen Dale	1st Tues.
Mason	Montrie Chaksupa	Point Pleasant	Richard L. Slack	Point Pleasant	4th Tues.
McDowell	Ross M. Patton	Gary	M. Kuppusami	Welch	2nd Wed.
Mercer	G. D. Duremdes	Princeton	David F. Bell, Jr.	Bluefield	3rd Mon.
Mingo	Russell A. Salton	Williamson	Edward B. Headley	Delbarton	2nd Wed.
Monongalia	Roland J. Weisser, Jr.	Morgantown	Paul J. Jakubec	Morgantown	1st Tues.
Ohio	Milton E. Nugent	Wheeling	Robert L. Joseph	Wheeling	4th Tues.
Parkersburg Academy	A. Paul Brooks	Parkersburg	Ghassan A. Khalil	Parkersburg	1st Thurs.
Potomac Valley	Jeffrey S. Life	Romney	Sadtha Surattanont	Romney	2nd Wed.
Preston	Frederick A. Conley	Kingwood	C. Y. Moser	Kingwood	4th Thurs.
Raleigh	James A. Barnes	Beckley	Jose L. Oyco	Beckley	3rd Thurs.
Summers	Chandra P. Sharma	Hinton	T. H. Mirza	Hinton	3rd Mon.
Tygart's Valley	C. Z. Villaraza	Grafton	Michael M. Stump	Elkins	3rd Thurs.
Western Med. Soc. of WV	Aaron D. Cottle	Spencer	A. H. Morad	Ripley	Bi-Monthly
Wetzel	Donald A. Blum	New Martinsville	K. M. Chengappa	New Martinsville	Monthly
Wyoming	Frank J. Zsoldos	Mullens	George F. Fordham	Mullens	Quarterly

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Medical Director

Thomas D. Pittman
Administrator

MEMBER BLUE CROSS OF CENTRAL OHIO
ACCREDITED BY THE JOINT COMMISSION ON ACCREDITATION OF HOSPITALS

Valium® IV
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, impending or acute delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in: relief of skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome. *Oral form* may be used adjunctively in convulsive disorders, but not as sole therapy. *Injectable form* may also be used adjunctively in: status epilepticus; severe recurrent seizures; tetanus; anxiety, tension or acute stress reactions prior to endoscopic/surgical procedures; cardioversion.
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindications: Tablets in children under 6 months of age; known hypersensitivity; acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: As with most CNS-acting drugs, caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals (drug addicts or alcoholics) under careful surveillance because of predisposition to habituation/dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations, as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

ORAL: Advise patients against simultaneous ingestion of alcohol and other CNS depressants.
Not of value in treatment of psychotic patients; should not be employed in lieu of appropriate treatment. When using oral form adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increase in dosage of standard anticonvulsant medication; abrupt withdrawal in such cases may be associated with temporary increase in frequency and/or severity of seizures.
INJECTABLE: *To reduce the possibility of venous thrombosis, phlebitis, local irritation, swelling, and, rarely, vascular impairment when used I.V.: inject slowly, taking at least one minute for each 5 mg (1 ml) given; do not use small veins,* i.e., *dorsum of hand or wrist; use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*
Administer with extreme care to elderly, very ill, those with limited pulmonary reserve because of possibility of apnea and/or cardiac arrest, concomitant use of barbiturates, alcohol or other CNS depressants increases depression with increased risk of apnea, have resuscitative facilities available. When used with narcotic analgesic eliminate or reduce narcotic dosage at least ⅓, administer in small increments. Should not be administered to patients in shock, coma, acute alcoholic intoxication with depression of vital signs. Has precipitated tonic status epilepticus in patients treated for petit mal status or petit mal variant status. Not recommended for OB use.
Efficacy/safety not established in neonates (age 30 days or less); prolonged CNS depression observed. In children, give slowly (up to 0.25 mg/kg over 3 minutes) to avoid apnea or prolonged somnolence; can be repeated after 15 to 30 minutes. If no relief after third administration, appropriate adjunctive therapy is recommended.
Precautions: If combined with other psychotropics or anticonvulsants, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam/Roche), *i.e.*, phenothiazines, narcotics, barbiturates, MAO inhibitors and antidepressants. Protective measures indicated in highly anxious patients with accompanying depression who may have suicidal tendencies. Observe usual precautions in impaired hepatic function; avoid accumulation in patients with compromised kidney function. Limit oral dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation (initially 2 to 2½ mg once or twice daily, increasing gradually as needed or tolerated).
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
INJECTABLE: Although promptly controlled, seizures may return; re-administer if necessary; not recommended for long-term maintenance therapy. Laryngospasm/increased cough reflex are possible during peroral endoscopic procedures; use topical anesthetic, have necessary countermeasures available. Hypotension or muscular weakness possible, particularly when used with narcotics, barbiturates or alcohol. Use lower doses (2 to 5 mg) for elderly/debilitated.
Adverse Reactions: Side effects most commonly reported were drowsiness, fatigue, ataxia. Infrequently encountered were confusion, constipation, depression, diplopia, dysarthria, headache, hypotension, incontinence, jaundice, changes in libido, nausea, changes in salivation, skin rash, slurred speech, tremor, urinary retention, vertigo, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances and stimulation have been reported, should these occur, discontinue drug.
Because of isolated reports of neutropenia and jaundice, periodic blood counts, liver function tests advisable during long-term therapy. Minor changes in EEG patterns, usually low-voltage fast activity, have been observed in patients during and after Valium (diazepam/Roche) therapy and are of no known significance.
INJECTABLE: Venous thrombosis/phlebitis at injection site, hypoactivity, syncope, bradycardia, cardiovascular collapse, nystagmus, urticaria, hiccups, neutropenia.
In peroral endoscopic procedures, coughing, depressed respiration, dyspnea, hyperventilation, laryngospasm/pain in throat or chest have been reported.
Dosage: Individualized for maximum beneficial effect.
ORAL—*Adults*: Anxiety disorders, relief of symptoms of anxiety, 2 to 10 mg *b.i.d.* to *q.i.d.*; acute alcohol withdrawal, 10 mg *t.i.d.* or *q.i.d.* in first 24 hours, then 5 mg *t.i.d.* or *q.i.d.* as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg *t.i.d.* or *q.i.d.*; adjunctively in convulsive disorders, 2 to 10 mg *b.i.d.* to *q.i.d. Geriatric or debilitated patients:* 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg *t.i.d.* or *q.i.d.* initially, increasing as needed and tolerated (not for use under 6 months).
INJECTABLE: Usual initial dose in older children and adults is 2 to 20 mg I.M. or I.V., depending on indication and severity. Larger doses may be required in some conditions (tetanus). In acute conditions injection may be repeated within 1 hour, although interval of 3 to 4 hours is usually satisfactory. Lower doses (usually 2 to 5 mg) with slow dosage increase for elderly or debilitated patients and when sedative drugs are added. (See Warnings and Adverse Reactions.)
For dosages in infants and children see below; have resuscitative facilities available.
I.M. use: by deep injection into the muscle.
I.V. use: inject slowly, take at least one minute for each 5 mg (1 ml) given. Do not use small veins, i.e., *dorsum of hand or wrist. Use extreme care to avoid intra-arterial administration or extravasation. Do not mix or dilute Valium with other solutions or drugs in syringe or infusion flask. If it is not feasible to administer Valium directly I.V., it may be injected slowly through the infusion tubing as close as possible to the vein insertion.*
Moderate anxiety disorders and symptoms of anxiety, 2 to 5 mg I.M. or I.V., and severe anxiety disorders and symptoms of anxiety, 5 to 10 mg I.M. or I.V., repeat in 3 to 4 hours if necessary; acute alcoholic withdrawal, 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary. Muscle spasm, in adults, 5 to 10 mg I.M. or I.V. initially, then 5 to 10 mg in 3 to 4 hours if necessary (tetanus may require larger doses); in children, *administer I.V. slowly;* for tetanus in infants over 30 days of age, 1 to 2 mg I.M. or I.V., repeat every 3 to 4 hours if necessary; in children 5 years or older, 5 to 10 mg repeated every 3 to 4 hours as needed. Respiratory assistance should be available. Status epilepticus, severe recurrent convulsive seizures (I.V. route preferred), 5 to 10 mg adult dose administered slowly, repeat at 10- to 15-minute intervals up to 30 mg maximum. Repeat in 2 to 4 hours if necessary keeping in mind possibility of residual active metabolites. Use caution in presence of chronic lung disease or unstable cardiovascular status. Infants (over 30 days) and children (under 5 years), 0.2 to 0.5 mg slowly every 2 to 5 min., up to 5 mg (I.V. preferred). Children 5 years plus, 1 mg every 2 to 5 min., up to 10 mg (slow I.V. preferred); repeat in 2 to 4 hours if needed. EEG monitoring may be helpful.
In endoscopic procedures, titrate I.V. dosage to desired sedative response, generally 10 mg or less but up to 20 mg (if narcotics are omitted) immediately prior to procedure, if I.V. cannot be used, 5 to 10 mg I.M. approximately 30 minutes prior to procedure. As preoperative medication, 10 mg I.M.; in cardioversion, 5 to 15 mg I.V. within 5 to 10 minutes prior to procedure. Once acute symptomatology has been properly controlled with injectable form, patient may be placed on oral form if further treatment is required.
Management of Overdosage: Manifestations include somnolence, confusion, coma, diminished reflexes. Monitor respiration, pulse, blood pressure; employ general supportive measures, I.V. fluids, adequate airway. Use levarterenol or metaraminol for hypotension. Dialysis is of limited value.
Supplied: Tablets, 2 mg, 5 mg and 10 mg, bottles of 100 and 500; Tel-E-Dose® (unit dose) packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10. Ampuls, 2 ml, boxes of 10; Vials, 10 ml, boxes of 1; Tel-E-Ject® (disposable syringes), 2 ml, boxes of 10. Each ml contains 5 mg diazepam, compounded with 40% propylene glycol, 10% ethyl alcohol, 5% sodium benzoate and benzoic acid as buffers, and 1.5% benzyl alcohol as preservative.

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Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse" and "abuse," my name is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems and interpersonal problems who, when their anxiety was severe, have been able to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have done without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, you'll come away with a confirmation of your knowledge that I *am* a safe and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium® (diazepam/Roche) ℞, please see the preceding page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

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The West Virginia Medical Journal

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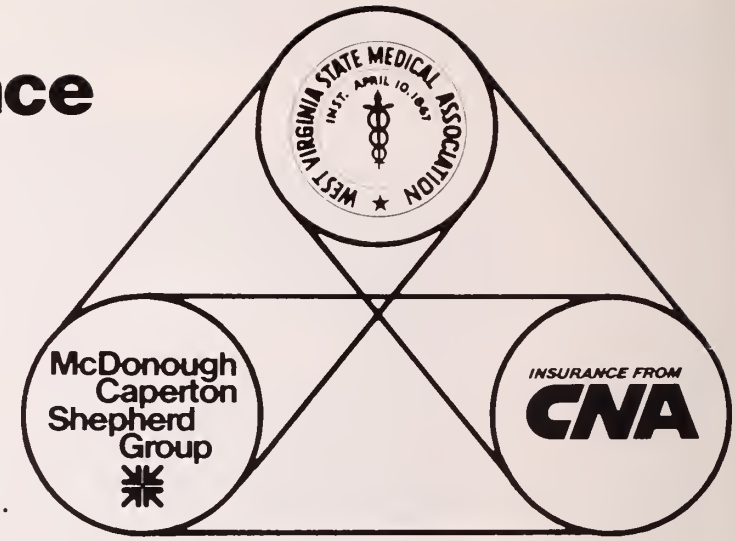
15th Mid-Winter Clinical Conference
January 22-24, 1982

Volume 77 Number 12
December 1981

Professional Liability Insurance Designed for West Virginia Physicians



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Reprinted from The West Virginia Medical Journal, September 1981

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Each prolonged action tablet contains:

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Phenylpropanolamine Hydrochloride	50 mg
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Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.

- Vasoconstrictor, antihistaminic actions
- Rapid and prolonged relief of nasal and sinus congestion
- Convenient b.i.d. dosage

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For Coughing With Nasal and Bronchial Congestion

RU-TUSS® EXPECTORANT

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Codeine Phosphate	65.8 mg
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Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

- Vasoconstrictor, antihistaminic, expectorant actions with codeine
- Rapid relief of upper respiratory congestion and cough
- Good tasting

Shreveport, Louisiana 71106.

For the Family

SNEEZE

RU-TUSS® TABLETS

DESCRIPTION
Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
Phenylpropanolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0.19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.
Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets.

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant. Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness. Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism. Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings.)

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time. Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia. Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening. Not recommended for children under 12 years of age. Tablets are to be swallowed whole.

HOW SUPPLIED

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription.

COUGH

RU-TUSS® EXPECTORANT

DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant and expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief of upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, and allergic rhinitis. Also, for the temporary relief of symptoms associated with hay fever, allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines. Concomitant use of an antihypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated.
Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthma and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patient should be warned of the potential that this drug may be habit forming. Ru-Tuss Expectorant may cause drowsiness. Patients should be warned of the possible additive effect caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers.

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with patients having hypertension, diabetes, hyperthyroidism and cardiovascular disease. Caution should also be used in patients with pulmonary, hepatic or renal insufficiency.

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness, dryness of mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness and insomnia. Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor, tachycardia and even convulsions.

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period.
Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period. Children 2 to 6 years of age: ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period. Children under 2 years of age: Use as directed by a physician.

HOW SUPPLIED

Pint bottles (16 fl. oz.)	NDC 0524-1010-16

Federal law prohibits dispensing without prescription.

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THE PATIENT THINKS HE HAS HEART TROUBLE...

...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

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At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

VALIUM® (IV)

diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED THE PATIENT NEEDS IT

ROCHE®

Please see summary of product information on the following page.

VALIUM® (diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis, stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500,* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

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Review Article

Clinical Aspects Of Pseudomonas Infections

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Pseudomonas aeruginosa is responsible for a variety of serious infections and is particularly prevalent among immunosuppressed or otherwise debilitated individuals. Because of the high morbidity and mortality in these infections it is necessary to use early and aggressive therapy with antimicrobials. Granulocyte transfusions and passive or active immunization hold promise for selected patients.

Pseudomonas aeruginosa infection is relatively rare in normal individuals, although it is responsible occasionally for chronic otitis externa or chronic urinary tract infections. However, in patients whose host defenses are compromised, pseudomonas can produce severe and life-threatening illness.

Certain factors predispose to pseudomonas infection: natural immunologic deficiency such as agammaglobulinemia, immunologic immaturity as in premature infants, and immunologic suppression as seen in transplant and cancer patients. Other conditions include granulocytopenia from any cause, congenital anomalies (especially of the urinary tract), extensive burns, cystic fibrosis, prior or concomitant antibiotic therapy, inhalation equipment use, and intravenous drug abuse.

The laboratory identification of *Pseudomonas aeruginosa* is relatively easy. It grows on most media, including simple blood agar and selective media such as MacConkey and eosine methylene blue. Most strains produce a green or blue-green pigment; the individual colonies appear rough and the edges are irregular; and the organism has a characteristic "fruity" odor. On Gram-stain the organism is a Gram-negative, straight or slightly curved bacillus. *Pseudomonas* species have polar monotrichous or a polar tuft of flagella and usually are motile. The organism oxidizes glucose and other carbohydrates to acid; gas is not produced. *Pseudomonas* strains are oxidase-positive, which helps distinguish them from the *Enterobacteriaceae*.

Pseudomonas is ubiquitous in the environment, surviving and flourishing in any reasonably moist place.[1] Its most significant ecologic niche, however, is the hospital.[2] Pseudomonas has a remarkable nutritional versatility and can multiply to extremely high concentrations in distilled water, using only the trace nutrients provided by dissolved CO_2 and a little dust. It can, in fact, survive in antiseptic solutions including pHiso-Hex and quaternary ammonium compounds.[3]

The incidence of pseudomonas infections is difficult to estimate, and will vary depending on the type of population served by a given hospital. For example, in a university or research hospital, the incidence is much higher than in a primary care facility where patients are likely to be relatively healthier.[4,5]

Pathogenesis

This organism has a great propensity to invade vascular walls,[6] often leading to the characteristic skin lesion known as ecthyma gangrenosum. Local acute vasculitis can cause necrotic hemolytic lesions in skin and underlying tissues

which may be the first objective sign of sepsis.[7] In the lung, hemorrhagic necrosis and massive atelectasis are common.[8] Pseudomonas sepsis frequently is accompanied by disseminated intravascular coagulation.[9]

The exact mechanism by which *Pseudomonas aeruginosa* produces disease in man is not understood. A number of enzymes and toxins, in addition to slime and endotoxin, cause pathologic effects in animals, but their exact role in human disease has not been determined.[10] At least two types of proteases are produced which may be responsible for the hemorrhagic skin lesions observed in some infections and for the destruction of corneal tissue in eye infections.[11,12] Two hemolysins are produced, one of which may contribute to the invasiveness of the organism in pneumonia by destroying pulmonary surfactant and attacking the tissue, producing atelectasis and necrosis.[12] Neither the proteases nor the hemolysins are a lethal factor. At least three exotoxins are known which are lethal for certain animals.[13] Exotoxin A has been detected in the serum of some patients with bacteremia due to *P. aeruginosa*.[14]

Infections in the normal host include otitis externa, malignant otitis externa, urinary tract infections, and skin infections.

Otitis externa.[15] This is a fairly common entity affecting the external auditory meatus and the auricle of the ear. A bacterial organism is the most frequently documented cause, and pseudomonas is the usual culprit.

Trauma a Factor

Trauma may be an inciting factor, and such habits as cleaning the ear canal with matches or similar objects cause abrasions that readily become infected. Heat and humidity are pathogenetic factors. The patient will present with swelling of the auricle and external auditory canal. In severe cases, the canal may be obliterated. There is great pain and tenderness but usually no systemic symptoms. Diagnosis is based on the clinical manifestations and Gram stain and culture of ear secretions. Treatment consists of local measures designed to cleanse the area and to diminish inflammation. Normal saline can be used to remove purulent exudate and debris.

Antimicrobials for local application should be chosen on the basis of sensitivities of the specific strain. Glucocorticosteroid ointments may help to decrease the inflamatory response. It may be necessary to insert a "wick" into the ear canal. Should the infection extend to cause peri-auricular cellulitis, systemic antibiotics will be required. In most instances analgesics also must be given.

Malignant otitis externa.[16] A particularly virulent external otitis occurs in patients with diabetes mellitus or in the elderly or otherwise debilitated individual. It usually is caused by *Pseudomonas aeruginosa,* although cases due to Aspergillus also have been reported. The diagnostic tip-off is the black necrotic eschar which forms and the presence of systemic symptoms. Complications include cranial nerve palsies, particularly of cranial nerve 7, septicemia, and death.

This form of otitis requires high-dose intravenous administration of antibiotics: a combination of gentamicin (Garamycin®) or tobramycin (Nebcin®) with carbenicillin (Geopen®) or ticarcillin (Ticar®) would be appropriate.[17] Vigorous surgical debridement often is necessary as well.

Differentiation Important

Urinary tract infections.[18-20] Infections of the urinary tract due to *P. aeruginosa* usually occur in patients with abnormalities of the genitourinary tract, in patients with indwelling Foley catheters, or in patients who have had recurrent urinary tract infections treated with a host of antibiotics. The important thing here is to differentiate true infection from contamination or transient colonization. The patient who has 10^5 or greater organisms and is symptomatic should be treated, as should the bactiuric pregnant patient even though asymptomatic.

The ideal treatment for the patient with urinary tract infection and a Foley is catheter removal; this is, of course, not always possible. Such a patient should be treated, if symptomatic, and then placed on a urinary antiseptic. The choice of therapy should be based on susceptibility tests, remembering that extremely high concentrations of most antibiotics are achieved in the urine—this means that some pseudomonas organisms which appear resistant to tetracycline or trimethoprim-sulfa on routine Kirby-Bauer testing may respond to treatment with these agents.

Skin infections. Recently, *P. aeruginosa* has been reported to cause a generalized pruritic and pustular rash in patrons of motel swimming pools and whirlpools.[21] In one study, 32 of 61 persons who used either type pool in an establishment reported a skin rash occurring between eight and 48 hours later. The rash was most evident in areas covered by bathing suits but

all other skin areas were affected with the exception of the head and neck. The rash resolved in seven days or less in all cases without specific therapy. *Pseudomonas aeruginosa*, serotype 11 was recovered from both pools and from two motel guests with rash. It appears that in this instance no antipseudomonal therapy need be given.

The Compromised Host

Pseudomonas infections occurring in the immunosuppressed or otherwise compromised host can be extremely serious, even lethal. Compromised hosts also include the elderly, those with cystic fibrosis and burns, addicts, and post-cardiac surgery patients.

Immunosuppressed. It is now appreciated that among patients with acute and chronic leukemias, lymphoma, aplastic anemia, myeloma and myeloid metaplasia, infection alone or in association with hemorrhage is responsible for almost 60 per cent of deaths.[22,23] The fatal infections are about equally divided between systemic and pulmonary sites.[22-24] Almost all of the bacterial septicemias are due to gram-negative organisms, of which half are caused by *Pseudomonas aeruginosa*. Most bacterial pneumonias in these compromised individuals also are associated with gram-negative organisms and, again, pseudomonas is the causative agent in over half.[5] It is quite clear that as a cause of death in the immunosuppressed host *Pseudomonas aeruginosa* is the single most important organism.

Besides the intrinsic immunosuppression due to the disease process, patients with malignancies are subjected to a host of other predisposing factors: immunosuppressive drugs, antimicrobial agents, blood products, and contaminated catheters, fluids, needles or respiratory-assist devices.

The most important thing predisposing these patients to infection, however, is granulocytopenia. It has been shown in a number of studies that the incidence and severity of infection are inversely related to the absolute peripheral granulocyte counts.[25]

Leukemia patients frequently are colonized by *Pseudomonas aeruginosa* in stool, pharynx and skin at the time they are admitted to the hospital; in a very short time, this colonization rate climbs from 25 per cent to 50 per cent — and many of these patients subsequently will develop bacteremia from their own strains of pseudomonas.[4] This seems peculiar to the *Pseudomonas aeruginosa*: that is, colonization with this organism leads to infection to a degree not found with any other organism.

Therefore, in the granulocytopenic patient with fever, the most likely cause is gram-negative sepsis, often due to *Pseudomonas aeruginosa*, and generally arising from lungs, rectum or pharynx. The absence of a clinically-obvious site of infection is to be expected because of the depressed white blood cell count. Rectal lesions may appear trivial, yet seed the blood. Pulmonary infiltrates may seem minimal, pharyngitis may occur without exudate, and urinary tract infections may be asymptomatic.

After careful, thorough history and physical examination, and after appropriate specimens have been obtained for culture, one should initiate therapy with full parenteral doses of gentamicin or tobramycin plus carbenicillin or ticarcillin.[26,27] There is evidence that gentamicin alone is ineffective against pseudomonas infections in the granulocytopenic patient. Carbenicillin, however, does seem to have an effect in the absence of granulocytes. For this reason, plus the fact that the two drugs are synergistic *in vitro* and in a rat model,[28-31] gentamicin or tobramycin and carbenicillin or ticarcillin are used together.

In institutions where staphylococcal bacteremia is frequent, coverage for this organism should be added to the regimen. When culture results are available, appropriate modification in therapy may be made. If all cultures are negative at four days and the patient has not defervesced, it is recommended that the antibiotics be stopped and the patient re-evaluated.[32]

Pneumonia in Older Patients

Elderly. Pseudomonas aeruginosa also has been reported to cause non-bacteremic pneumonia, primarily in older patients with chronic pulmonary and chronic heart diseases.[8] The patients had marked apprehension, severe systemic toxicity and mental confusion at presentation. Chills, fever, dyspnea and productive cough (copious yellow or green sputum) were present. Cyanosis occurred frequently. A relative bradycardia and reversal of the usual diurnal variation in temperature curves were noted.

The usual x-ray picture was that of diffuse bronchopneumonia, often bilateral and involving two or more lobes. Microabscess formation was common, as was the presence of distinctive nodular infiltrates not noted in other gram-negative pneumonias.

Cystic fibrosis. The most common fatal inherited disease in the Caucasian population is cystic fibrosis.[33] It occurs at an estimated frequency of one in 5,000 live births. Chronic pul-

monary disease is the major factor contributing to morbidity and mortality. Mucociliary airway clearance is impaired, either because of the excessively viscous pulmonary secretions or because of failure of ciliary activity. In the absence of effective pulmonary clearance, infection might be expected. Indeed, infection in cystic fibrosis patients is common.

The majority of organisms isolated either is *Staphylococcus aureus* or *Pseudomonas aeruginosa*. The incidence of *P. aeruginosa* colonization of cystic fibrosis patients ranges between 50 per cent and 90 per cent.[34] The reasons for this predominance are not clear. One reason may be the frequent use of antimicrobial therapy which has the tendency to eliminate the less resistant organisms. The frequent use of mist-tent therapy is another possible factor explaining the high incidence of pseudomonas in these patients. The purpose here is to maintain humidity, depositing water in the airways to help liquify pulmonary secretions. Unfortunately, nebulizers provide an excellent habitat for the pseudomonas.

More Specific Relationship

There may be a more specific relationship between cystic fibrosis and *Pseudomonas aeruginosa*. Serotyping of pseudomonas strains isolated from cystic fibrosis patients reveals a clustering of serotypes.[34-35] Some serotypes common in the environment or in other patients are rarely found in cystic fibrosis patients. This disease may be associated with an immunologic defect involving a differential response to pseudomonas: under normal conditions, in the presence of serum containing antibody, pseudomonas organisms are rapidly ingested by rabbit alveolar macrophages. Serum from normal individuals promotes this activity, but serum from cystic fibrosis patients does not, despite the fact that circulating anti-pseudomonal antibody titers are high in most cystic fibrosis patients. It seems possible that serum from cystic fibrosis individuals either contains a factor that protects pseudomonas against macrophage ingestion or lacks some factor that would otherwise facilitate ingestion.

Another peculiar relationship between pseudomonas and cystic fibrosis is the high frequency of mucoid strains isolated;[35] one half to two thirds of cystic fibrosis patients with pseudomonas have mucoid variants. Moreover, these mucoid strains are rarely encountered outside of cystic fibrosis patients. The association is so common that the presence of mucoid pseudomonas in the respiratory tract can almost be used as an additional diagnostic criterion for cystic fibrosis and should greatly increase clinical suspicion in borderline cases.

During acute exacerbations in patients with cystic fibrosis many authorities recommend antimicrobial coverage for staphylococci and pseudomonas. Septicemia is very uncommon in these patients even in the presence of overwhelming pulmonary infection. The antibiotics are, of course, adjunctive to other maneuvers for improving pulmonary toilet.

Burns. The single most serious and common complication of burns is infection.[36] Infection may be localized to the site of the burn or may be manifested as an overwhelming, general sepsis. Burns are most frequently infected with *Staphylococcus aureus* and *Pseudomonas aeruginosa*. Microorganisms usually gain access to burns directly. If a dressing is not properly occlusive or if there is a break in the eschar in open treatment, bacterial invasion can occur. The hematogenous spread of infectious agents to burn sites also may happen. The burn area is an environment well suited to microbial growth, but why pseudomonas frequently predominates is not totally clear.[37] However, once infection is established, rapid multiplication occurs; bacterial invasion of deeper tissues leads eventually to blood-stream invasion.

The signs of burn infection may be minimal, especially in the early stages. An area of purulence or inflammation at the edge of the eschar may be the only sign. Systemic manifestations of sepsis include fever, tachycardia, petechiae, and mental confusion.

Diagnosis, Therapy-Burn Infections

The diagnosis of burn infection is dependent on a sharp eye and frequent cultures of wound, exudate and blood. Therapy consists of aggressive debridement, direct application of mafenide (Sulfamylon®) or silver sulfadiazine (Silvadine®) and administration of appropriate systemic antibiotics.[38] It is especially important to monitor gentamicin or tobramycin serum levels in burn patients as they often suffer renal impairment due to hypovolemia, and, in addition, may lose great amounts of serum through the burn wound surface.

Addicts and post-cardiac surgery patients. P. aeruginosa is reported to cause septic arthritis and osteomyelitis.[39] In one series of five cases, four of the patients had acquired the organism in the hospital, and in each patient the bone involvement developed secondary to a contiguous focus of infection. A more recent report[40] describes sternotomy wound infection and sternal

osteomyelitis due to *P. aeruginosa* in five patients following open heart surgery. In this instance, a contaminated suction apparatus in the operating room was found to be the reservior.

Vertebral osteomyelitis due to this organism also has been reported.[41,42] It is postulated that in patients with urinary tract infection the microbe travels from the pelvic veins into the lumbar paravertebral plexus and thus gains entrance to the vertebral body. A number of addicts, without evidence of urinary tract infection also have been noted to develop vertebral osteomyelitis due to *Pseudomonas*, apparently spread hematogenously.[43]

The diagnosis of osteomyelitis is suspected in the patient with localized bone pain and fever; occasionally a draining sinus will be present. The identity of the organism may be made from blood culture in some instances, but more often a bone biopsy for culture is required. Organisms present in sinus tracts may not reflect accurately the etiologic agent of osteomyelitis.

A combined therapeutic approach is often required: long-term parenteral antibiotics and surgical intervention.

Pseudomonas also has been incriminated as the cause of endocarditis, again in selected groups.[44-46] Intravenous drug abusers and patients who recently have undergone cardiac surgery are particularly susceptible to *Pseudomonas* endocarditis. Other predisposing conditions include skin infection and gastrointestinal or genitourinary tract surgery or infection. It is fortunately an uncommon disease as it is usually fatal. Mitral and aortic valves are more commonly involved.

Combination Drug Therapy

Combination drug therapy with full doses of gentamicin or tobramycin plus carbenicillin or ticarcillin for six to eight weeks is recommended. Some authors suggest that polymyxin be added to this regimen (2.5-5.0 mg/kg/d). Between one half and one third of patients also will require surgery for valve replacement. Mortality in the best series is > 50 per cent.

Recommended antimicrobial therapy for *P. aeruginosa* infections will vary depending on local antibiotic susceptibility patterns. In general, *P. aeruginosa* isolates will be susceptible to an aminoglycoside [gentamicin, tobramycin, or amikacin (Amikin®)], to carbenicillin or ticarcillin, and to polymxin (Polymyxin-B®) and colistin (Coly-Mycin®).[29,31,47] Although appearing quite active *in vitro*, the polymyxin class of drugs has not been as effective in human infections and, therefore, is not used frequently. For serious *P. aeruginosa* infections, a combination of an aminoglycoside and carbenicillin or ticarcillin is recommended. This combination offers the advantage of synergy or enhanced killing activity over either drug used alone against most *P. aeruginosa* isolates.[26-28,30,31]

There are a number of investigational antimicrobials in the aminoglycoside, penicillin and cephalosporin families that have *in vitro* activity against *P. aeruginosa*. Eventually, some of these compounds will be approved for clinical use.

Transfusing Granulocytes

Because pseudomonas infections respond so poorly even to optimal antibiotic therapy, people have been investigating other modalities to enhance resistance in the host. Severe pseudomonas infections frequently occur in patients with granulocytopenia.[25] Survival of the patient and clearance of the infection depend on recovery from the granulocytopenic state. The idea of transfusing granulocytes to reconstitute the deficient host has been considered for many years. With the development of methods for procuring large numbers of cells from normal individuals it has become feasible to treat infections with granulocyte transfusions. Several clinical studies have suggested that this therapy is beneficial, and experimental evidence is strongly suggestive. In a dog model,[48] neutropenia is reliably produced by radiation, and pneumonia is caused by the inoculation of 5×10^8 *Pseudomonas aeruginosa* directly into the lung.

In a randomized control trial, five treatment regimens were compared: no antibiotics or granulocytes (controls); gentamicin alone five mg/kg/d; carbenicillin alone 500 mg/kg/d; gentamicin and carbenicillin in the doses mentioned; and gentamicin plus granulocyte transfusions (5×10^9 cells/d x seven days). The most effective therapy was gentamicin plus granulocyte transfusions. Gentamicin alone was not significantly better than no specific therapy. Carbenicillin with or without gentamicin gave intermediate results.

In a subsequent experiment using the leukopenic dog model[49] the addition of passive immunization with type-specific IgG antibody to *P. aeruginosa* to granulocyte transfusions and gentamicin significantly increased rates of survival after induction of pseudomonas pneumonia. Passive immunization alone was not protective.

There is some clinical evidence[50] that granulocyte transfusions may be of benefit in highly selected instances. Granulocytopenic patients with documented gram-negative septicemia, who had not responded to antibiotics alone, showed improvement when granulocyte transfusions were administered.

Another approach to the therapy of pseudomonas infection has been active immunization of susceptible patients with a hepavalent lipopolysaccharide preparation. Clinical trials in burn patients have been promising.[51] Those in cancer patieants are less clear cut.[52,53] However, by immunizing patients only when in remission from their leukemia and while not receiving antineoplastic chemotherapy, higher hemagglutinating antibody titers were achieved in a greater percentage of patients.

Severe adverse reactions have limited use of the vaccine previously. But by mixing adrenal corticosteroids with vaccine injections, the incidence of adverse reactions was decreased without significantly suppressing the antibody response. Unfortunately, the antibody titer rises are relatively short-lived, and booster injections of vaccine might be required.

The lack of significant secretory antibody response after parenteral immunization with the lipopolysaccharide vaccine should be recognized. Therefore, local immunization of the respiratory tract mucosa in young patients with cystic fibrosis or in patients with chronic lung diseases might be tried to stimulate a secretory antibody response.

Two Other Types

At least two other types of vaccine are being investigated. An extract vaccine prepared from the surface antigens of 16 serotypes was successful in delaying acquisitions of *P. aeruginosa* and significantly decreasing mortality in patients with extensive burns.[51] A ribosomal vaccine[54] was noted to offer 60-100 per cent protection in a mouse model against challenge with *P. aeruginosa* of the same serotype; there was no heterologous protection.

At present, the most promising use of pseudomonas vaccination or passive antibody is in severely burned patients who are predisposed to pseudomonas infection. There are encouraging reports of decreased pseudomonas-associated mortality in some groups of vaccinated patients with cancer. Antibodies alone, however, are probably insufficient to alter this infection without the presence of an adequate number of circulating granulocytes. Therefore, a combination of leukocyte transfusions, appropriate antibiotics, and specific antipseudomonas antibodies, induced by prior vaccination or passively administered, may be optimal treatment for pseudomonas infection in leukopenic patients.

Editor's Note: Here are the generic drugs and trade names (in parentheses) to which reference is made in this manuscript: gentamicin (Garamycin); tobramycin (Nebcin); amikacin (Amikin); carbenicillin (Geopen); ticarcillin (Ticar); mafenide (Sulfamylon); siver sulfadiazine (Silvadene); polymyxin (Polymyxin); and colistin (Coly-mycin).

And Now For A Quiz On The Material Presented Above!

(Answers on Page xvii)

A. True or false:

1. Infections caused by *Pseudomonas aeruginosa* are rare in normal, but fairly common in immunocompromised hosts.
2. *P. aeruginosa* are rarely found in the environment and are fastidious in their growth requirements.
3. The granulocytopenic patient with *P. aeruginosa* infection should be treated with gentamicin or tobramycin as a single agent.
4. Mucoid strains of *P. aeruginosa* are found almost exclusively in patients with cystic fibrosis.
5. Burn patients do not become infected with *P. aeruginosa*.

B. Short answers:

6. Who is at risk to develop malignant external otitis?
7. What factor predispose to urinary tract infections caused by *P. aeruginosa?*
8. What are the clinical features of nonbacteremic pseudomonas pneumonia?
9. *P. aeruginosa* osteomyelitis is seen in what clinical settings?
10. How does *P. aeruginosa* cause disease?

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Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 ½ by 11 in.) white paper. Wide margins (at least 1 ¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

1981 Van Liere Memorial Student Research Convocation, WVU School Of Medicine

THE 1981 Van Liere Memorial Research Convocation for Students in the West Virginia University School of Medicine was held on April 2. These yearly Convocations enable students in the School of Medicine to present the results of their research activities in competition for the Edward J. Van Liere Award.

This award, consisting of a plaque and a check for $200, was established in 1965 by action of the faculty of the School of Medicine to recognize the research efforts of our students and to honor the late Dr. Edward J. Van Liere, who served as Chairman of the Department of Physiology from 1921-1955 and as Dean of the School of Medicine from 1935-61.

Twenty-one students participated in the 1981 Research Convocation, which was the seventeenth one in the series. Although three of these students were ineligible to compete for the Van Liere Award because they presented data from research done in partial fulfillment of the requirements for a master or a doctor degree, they did compete for prize money equal in value to the monetary awards associated with the Van Liere Award competition.

The winner of the Edward J. Van Liere Award this year was Vincent C. Traynelis, a second-year student. The first runner-up and winner of a check for $100 was Sanjay S. Yadav, also a second-year student. Two students, Cathy L. Romine, fourth year, and Sharon R. Hill, a senior physical therapy student, tied for second runner-up. They both received a check for $50.

Two students ineligible to compete for the Van Liere Award also received prizes. William L. Manion, third year, received a check for $200, and Seméle Foundas, first year, received a check for $100.

The publication of the winning abstracts of the oral presentations in *The West Virginia Medical Journal* constitutes an important and greatly appreciated recognition of the research efforts of our students.

W. E. Gladfelter, Ph.D., *Chairman*
Van Liere Memorial
Research Convocation Committee

Effect Of Temperature On Macrophage Functions

VINCENT C. TRAYNELIS
Medicine II, Morgantown
RAMA GANGULY, Ph.D.

CHRONIC cutaneous infections caused by such organisms as *Sporothrix schenckii* and *Mycobacterium marinum* characteristically involve the skin of distal limbs where the temperature is usually 32°C or less. One presumptive reason for such localization of these infections is the capacity of these organisms to grow and divide more rapidly at cooler temperatures while unable to do so at visceral temperature. However, cellular immune functions may be altered in the extremities, and could be partially responsible for the predisposition of the skin to infections from these organisms. The study was designed to examine, at various temperatures, the response of macrophages *in vitro* to yeast cells as well as to the lymphokine, macrophage migration inhibitory factor (MIF).

Guinea pig peritoneal macrophages were incubated with opsonized yeast cells of *Saccharomyces cerevisae* at 25°, 29°, 33°, 37° and 39°C. Cell attachment, phagocytosis and killing were assessed using dye uptake technique and microscopy. Splenic lymphocytes were incubated with the mitogen Concanavalin A to produce MIF. After removal of the mitogen and lymphocytes, the supernatant was used to assess macrophage responses to MIF at the above-mentioned temperatures. Migration inhibition was determined using Mackaness chambers and planimetry.

Macrophage interactions with yeast cells were optimal at 37°C. There was a marked decrease in functions at all other test temperatures. Thus, yeast-cell killing declined by 83.4 per cent at 25°C: Compared to the control values at 37°C, macrophage response to MIF also was decreased significantly at test temperatures. This reduction was most pronounced at 29°C (a decrease of > 80 per cent).

These data indicate that macrophages do not respond optimally to MIF or interact with yeast cells at temperatures lower than 37°C. It is suggested that this compromise in macrophage functions, due to low temperatures, may play an important role in the predisposition of the extremities to cutaneous infections from various intracellular pathogens.

Hormonal Regulation Of Glycogenolysis In Rat Hepatocytes: The Interaction Of Insulin With Glucagon, Phenylephrine And Epinephrine

SANJAY S. YADAV
Medicine II, St. Albans
ROLF KLETZIEN, Ph.D.

THE physiological control of blood glucose levels largely is a balance between the glucose-releasing effects of glucagon and the catecholamines upon the liver, and the glucose-storing effects of insulin. On the basis of *in vivo* and perfused liver studies it has been thought that insulin and glucagon directly antagonize each other's effects on the hepatocyte, but recent indirect evidence makes this view appear less tenable.

We decided to approach the problem by examining glycogenolysis in adult rat liver parenchymal cells in primary tissue culture because this system has the advantage over the perfused liver of providing a precisely-defined extra-cellular environment. Hepatocytes were incubated with hormones in media free of glucose or gluconeogenic substrates, and the glucose released due to glycogenolysis was measured enzymatically.

Insulin alone did not have any effect on the control level of glycogenolysis. Glucagon at its minimum effective concentration of 1×10^{-8} M increased glycogenolysis by 120 per cent, and this effect was not inhibited by high concentrations of insulin (8.8×10^{-7} M). Phenylephrine at its optimal concentrations of 1×10^{-6} M increased glycogenolysis by 70 per cent over controls, and this increase was decreased by 50 per cent by insulin (8.8×10^{-7} M). Epinephrine at the minimum effective concentration of 1×10^{-5} M increased glycogenolysis by 30 per cent, and insulin at 1.75×10^{-6} M inhibited this increase by 33 per cent.

Since phenylephrine is an alpha-agonist, epinephrine both an alpha- and beta-agonist, and glucagon acts only via cAMP, our results indicate that insulin is able to inhibit the alpha-adrenergic but not the cAMP-mediated stimulation of glycogenolysis in a precisely-defined, physiologically-stable culture of hepatocytes. Because insulin is a physiological antagonist of glucagon, this implies the involvement of factors extrinsic to the hepatocyte in insulin's antagonism of cAMP-mediated stimulation of glycogenolysis. It may be that it is insulin's inhibition of glucagon-release from the pancreas that is of primary importance.

Changes In Proteolytic Enzyme Activity Of Denervated Rat Skeletal Muscle

SHARON R. HILL
Physical Therapy Senior, New Martinsville
WILLIAM T. STAUBER, Ph.D.

DENERVATION of skeletal muscle results in muscle atrophy. However, the process by which muscle atrophy occurs is unknown. Many physical therapy procedures apparently result in responses that reverse muscle atrophy. Lack of scientific support of these therapeutic responses, however, is due to insufficient understanding of the degradative processes occurring in muscle tissues. One organelle that contains proteolytic enzymes capable of degrading muscle protein is the lysosome, and the lysosomal protease, cathepsin B, has been shown to increase in muscle disease states such as denervation atrophy. The purpose of this research was to determine by fluorescent histochemical assays the content of cathepsin B in normal and denervated rat skeletal muscle tissue.

The soleus muscle of one limb of 200-250g Sprague-Dawley rats was denervated, and the contralateral limb served as a control. After seven days, the rats were sacrificed, and the soleus muscles were removed and frozen in isopentane cooled by liquid nitrogen. Tissue sections were cut, incubated in a fluorescent histochemical assay solution, and subsequently viewed under a fluorescence microscope.

Tissue sections of denervated muscle contained greater amounts of enzyme activity than control muscle, inferring that the proteolytic enzyme, cathepsin B, plays a role in muscle degradation associated with atrophy following denervation. Increased understanding of the physiological and pathological processes in muscle tissue should result from the use of such histochemical fluorescent assays. Establishment of a scientific basis for application of therapeutic procedures designed to prevent or delay muscle atrophy such as exercise, electrical stimulation and drug therapy thus can be accomplished by using protease activity as an indication of atrophy.

(This work was supported in part by a grant from the Physical Therapy Foundation to W. T. S.)

A Double-Blind Evaluation Of Oral Ciramadol In The Treatment Of Postoperative Pain

CATHY L. ROMINE
Medicine IV, Huntington
MICHAEL W. JOPLING, M. D.
DAVID F. GRAF, M. D.
RICHARD B. KNAPP, M. D.

CIRAMADOL is a new, potent analgesic of the narcotic agonist-antagonist class currently undergoing phase II drug trials. A randomized, double-blind parallel study was performed in 81 patients having moderate or severe postoperative pain to determine the efficacy and safety of a single administration of oral ciramadol (30 mg and 60 mg) with codeine (60 mg) and placebo. Pain intensity, degree of pain relief, vital signs, degree of sedation and any side effects were recorded at zero, 30, and 60 minutes and at two, three, four, five, and six hours after drug administration.

In all the efficacy parameters only the ciramadol (60 mg) and codeine (60 mg) produced clinically-better analgesic responses than did placebo. No statistically-significant differences in efficacy could be shown between ciramadol (60 mg) and codeine (60 mg). Ciramadol (30 mg) clinically produced less of an analgesic response than did placebo. No statistically-significant differences in vital signs were found, either within or between treatment groups. The amount of sedation was found to be minimal in all groups. Adverse effects in this, and in previous studies, were not of sufficient frequency or consistency to permit valid conclusions. No serious or unanticipated effects were found or have been reported.

We have shown that ciramadol is as effective as codeine in the control of moderate and severe pain and, since previous studies have shown ciramadol to be devoid of addictive properties, it has the potential to offer an advantageous alternative to narcotics in the control of acute and chronic pain states.

Age-Associated Changes In Rat Tracheobronchial Glands: A Morphometric And Histochemical Analysis

WILLIAM L. MANION
Medicine III, Philadelphia, PA
RICHARD G. FREDERICKSON, Ph.D.

THIS study represents the first attempt to quantitate histochemical as well as morphologic changes in tracheobronchial glands associated with aging. Only male animals were studied since an inherent variability is present in the mucous composition of male and female rats.

Representative tissue samples of the upper and lower tracheas of four groups of five male Wistar specific pathogen-free rats were fixed in 10-per cent formalin with one-per cent cetylpryidinium chloride for the preservation of acid mucosubstances. The four groups were 60, 183, 360 and

730 days of age. Three series of 10 eight-μm sections obtained at equidistant levels 80 μm apart were stained separately with alcian blue (pH 2.5), periodic acid Schiff and high iron diamine. The sections were projected and drawn at a magnification of 240X. Quantitative evaluation of specifically-stained glands and their lumena then was performed with a semi-automatic, manual, optical image analyzing system (KONTRON, Messgerate, MOP/Am 01). The Tukey test (95-per cent confidence level) was used to determine any statistically-significant difference among the four groups.

Results of the study indicated that there were significant increases in gland area associated with aging. There was an increase in the production of both neutral and acid mucosubstances with a shift favoring the production of acid mucosubstances, particularly sialomucins in older animals. In animals older than 183 days there was an increase in the gland lumenal area, the measurement of which may serve as an objective index of chronic bronchitis.

Since mucus containing high levels of acid mucosubstances is considered to be more viscous than that containing neutral mucosubstances, the findings of this study may help to explain the lower mucociliary clearance rates reported in older mammalian subjects.

Effects Of Partial Deafferentation On The Auditory Cortex Of The Young Adult Rat

SEMÉLE FOUNDAS
Medicine I, Morgantown
DEBORAH W. VAUGHAN, Ph.D.

THE degree to which the neocortex of the rat can respond to the removal of a major afferent system was studied. A lesion was made, sectioning the corpus callosum in one-month rats and, after a three-month survival period, the following parameters were measured on plastic sections: thickness of the auditory cortex, the relative proportion of this thickness occupied by the six cortical layers, and the size of layer V pyramidal cell bodies. The results indicated that the acallosal animals did not differ significantly from the age-matched control.

The Golgi method was used to determine spine densities on the apical dendrites of layer V pyramidal cells. The results from the Golgi study and from measurements taken from tangential sections through layer IV indicated that there was a loss of large-diameter dendrites in the acallosal animals, therefore resulting in a net loss of spines.

The cortical projections of the medial geniculate body (MGB) were studied using the Fink-Heimer technique for degenerating terminals. When reconstructed on the lateral surface of the brain, three rostrocaudally-oriented bands of terminal degeneration were present. A comparison of the degeneration pattern produced by a lesion of the MGB in the acallosal animals and age-matched controls using quantitative electron microscopy indicated that the thalamic terminals spread into the callosal domain as a result of the callosotomy.

A Continuing Medical Education Event!

The 15th Mid-Winter Clinical Conference

Holiday Inn Charleston House

600 Kanawha Boulevard, East, Charleston, W. Va.

January 22-24, 1982

WEST VIRGINIA STATE MEDICAL ASSOCIATION
WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE
MARSHALL UNIVERSITY SCHOOL OF MEDICINE

WATCH THE JOURNAL FOR PROGRAM DETAILS

THE PROGRAM CO-CHAIRMEN again are Ralph H. Nestmann, M. D., and Joseph T. Skaggs, M. D., both of Charleston. Also on the Program Committee are William O. McMillan, Jr., M. D., of Charleston, Maurice A. Mufson, M. D., Huntington; Robert L. Smith, M. D., Morgantown, and C. Carl Tully, M. D., South Charleston.

THE REGISTRATION FEE of $50 for the entire conference will be charged all registrants except nurses, medical students, interns and residents. Advance registration is requested, and please make checks payable to "WEST VIRGINIA STATE MEDICAL ASSOCIATION."

ACCREDITATION: Attendance will be acceptable for 14 hours of Category 1 credit toward the Physician's Recognition Award of the American Medical Association; and the program also is acceptable for 14 Prescribed hours by the American Academy of Family Physicians.

OVERNIGHT ACCOMMODATIONS: Physicians should communicate directly with the reservation manager of the hotel or motor inn of their choice, with the conference headquarters hotel setting aside rooms for registrants.

FOR ADVANCE REGISTRATION, please complete the form below and mail to: WEST VIRGINIA STATE MEDICAL ASSOCIATION, P. O. BOX 1031, CHARLESTON, W. VA. 25324.

- -

Please register me for the 15th Mid-Winter Clinical Conference in Charleston, W. Va., January 22-24, 1982. My $50 registration fee is (is not) enclosed.

Name (please print) _____ *Specialty* _____

Address _____ *City* _____

The President's Page

Guest Author
Alice (Mrs. Logan W.) Hovis, President
Auxiliary to the
West Virginia State Medical Association

TOGETHER WE CAN MAKE IT HAPPEN

Auxiliary means help, assistance and support. As President of the Auxiliary to the West Virginia State Medical Association I am offering our help, assistance and support to you. We are over 900 strong, capable, intelligent spouses of physicians who care and are ready and willing to assist you.

A primary focus of our Auxiliary includes community health projects such as immunization awareness, health education in the schools, promotion of auto child safety restraints, blood pressure clinics and the highly successful AMA Auxiliary "Shape Up For Life" campaign. Good nutrition and regular exercise were the themes the first two years. This year, the campaign continues with the emphasis on stress management.

AMA-ERF is one of the most important activities of our Auxiliary. It is the only philanthropic fund-raising endeavor of the AMA Auxiliary. This past year, almost $23,000 was donated from West Virginia; however, because of spiraling cost and shrinking government subsidies, funds are needed more than ever.

We are ever mindful of legislative activities that affect the health field on the national level, but are you aware that last year more than 120 bills on health issues were introduced in our State Legislature? The impact of this legislation may be more direct on your daily practice than federal legislation. Our Legislative Alert System is organized and has been used to inform us of impending national legislation, the AMA position and the action we should pursue. The Legs Alert also can be utilized on the state level when the Medical Association would like our assistance in letting our representatives know how the medical community views the issue.

Our major effort is to see that health legislation is passed that truly will benefit all of the people, and that bills which are not in the best interest of good health practices be changed or not passed.

The Auxiliary is always working on membership. The more members we have the greater our voice on issues we are concerned with as spouses of physicians. If your spouse is not currently an active member in one of our 18 organized auxiliaries or a Member-At-Large, encourage her (or him!) to join her county organization. If there is not a county auxiliary, being a Member-At-Large is an excellent way to be a part of the Auxiliary. For information on membership, contact Mrs. Richard Kerr (Linda), Membership Chairman, 483 Rebecca Street, Morgantown 26505.

We are especially interested in the resident physician/medical student spouse. They are our future, and we want to make certain they know what the Auxiliary's goals and objectives are, and the benefits of belonging. A special committee chaired by Mrs. D. Sheffer Clark (Betty) was appointed for this task. Inquiries may be sent to her at 109 Camelot Drive, Huntington 25701.

Alice

The West Virginia Medical Journal

Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

S.L.O.P.

Languages have always shown gradual changes in the meaning of words and phrases, and English is no exception. The Germanic and Romance languages have contributed many words directly to English, and some words now convey meanings quite opposite the ones originally intended. But the things that are happening to English with the "now" generation of mass media speakers and writers are not just evolutionary. They are revolutionary because instantaneous communication makes for instantaneous imitation in the far-flung corners of the listening world. Hence a need for this editorial about S.L.O.P. (Saving the Language of the Purist).

Among many reasons for the abandonment of precise English is the general lack of pride in teaching and learning that has given us a generation of writers and speakers who not only failed to learn composition and exposition, but who hardly learned the basic three R's. In addition, the notion that old methods and ideas are inadequate and irrelevant has taken firm hold; and it has been a short step from that conviction to its corollary that "different is better".

As a result, there has been a rapid trend toward the introduction of words and phrases into uses that differ markedly from the intent of earlier users, and the invention of new words from old. Many of these new expressions have taken such instant and universal hold that they already have become cliches in their own right. Some that come easily to mid: cost-effective; doing one's thing; impact (verb); point in time; as far as; what it's all about; bottom line; continuum; early on; ecksetera (pronunciation of etc.); meaningful; up front; meet the needs; identity crisis; convince (meaning to persuade).

Bureaucratic jargon is most fascinating. Each organization seems to develop its own vocabulary but there also are generally-used cliches. Everything is "structured" and submitted to the process of "prioritization" by the "educationist" for whom the "bottom line" is the "interfacing" of the "data" with the "newness" "criteria" in an "appropriateness review" within the "time frame" of the "current" "continuum". This may be thought of as a "learning experience"! And there are single words, such as "like" to mean "uh" or "for example"; "hey", as in "I thought, hey! this isn't what I meant"; "basically"' meaning fundamentally or ideally; "no way" meaning impossible; to "impact", using that noun as a verb.

As a matter of interest in the invention of new words, one might wonder at their origins as well as the intent of the originator. A case in point: A recent survey which was reported in Family Magazine indicated that only 16 per cent of women preferred to be called Ms. rather than Mrs. or Miss; 81 per cent preferred Mrs., and 62 per cent of single women preferred Miss. Why the widespread use of Ms?

Then there is the reading of the written word from news or other copy (by everyone in the TV or radio station at some time or other) with the inexplicable emergence of the now almost universal characteristic of emphasizing prepositions such as of, on, and to, as in "the prisoner confessed *TO* the crime *ON* the street nearest *TO* the house". And don't forget code words such as "bit", as in the whole election "bit" is for the birds.

Poorly organized, expounded and composed writing on medical topics is being seen more and more frequently by the editorial staff of your *Journal* — and a substantial percentage of papers is rejected for those and other reasons. The incomplete grasp of basic composition, grammar and spelling becomes ever more apparent in manuscripts submitted. One may be permitted to hope (not "hopefully") that the standards of excellence in speaking and writing will some day be re-attained. Meanwhile, your editorial staff will pursue its goal of excellence in construction as well as content in your favorite medical journal.

Deputy Attorney General Charles G. Brown, who has been somewhat of a thorn in the side of hospitals and others in the health care field in West Virginia with his moves aimed at cost containment, may have touched an even more sensitive nerve in a recent speech before the Huntington Rotary Club.

NEGOTIATING MEDICAL BILLS

Mr. Brown, noting that some hospitals don't even itemize bills, urged consumers to fight back against high hospital and doctor charges. He said these bills should not be paid unless the price is agreed upon in advance.

"I'll probably get in trouble for saying this," he told the Rotarians, " . . . but under the legal doctrine of *quantum meruit* (pay what it's worth), if no price is agreed upon in advance, the doctor or hospital is legally entitled to only a reasonable price."

"To repeat," he said, "they cannot dictate any price they want unless that price was agreed upon in advance. If the price is unreasonable, then negotiate, but don't pay outrageous prices just because a hospital or a doctor decides, after the fact, that this is what you owe. The time has come to challenge the prices head on in the market-place and in the courts. The doctrine of *quantum meruit* permits this challenge. Businesses, labor unions and insurance companies are urged to stand with individual consumers in enforcing this basic legal principle."

He said that business and labor have a huge stake in health care cost containment and thus they should start negotiating bills, and fighting outrageous bills under the law of *quantum meruit*.

Now that Deputy Attorney General Brown has opened this new "can of worms" for the medical care field, it is almost certain to lead to more litigation for hospitals and doctors. This is an area of cost containment that has been overlooked by Mr. Brown. Legal costs and malpractice insurance premiums have become big expense items for all medical care providers today. The constant threat of suits has caused physicians to order many expensive and questionable tests which also add to the patient's bill. The way lawyers and the courts deal with the medical profession could stand a bit of scrutiny too in light of the increased litigation in the medical field. Perhaps the laws dealing with malpractice need to be revised to limit such suits and shorten the statutes of limitation while making it more difficult to prove malpractice in certain cases.

And while Mr. Brown is at it, we would suggest that he look into the enormous hidden costs to hospitals brought on today by the regulators. The "certificate-of-need" process has added hours of staff time and an abundance of paper work for hospitals even when purchasing replacement equipment.

Concerned about developing programs to meet the unmet health needs of millions, Congress and other government bodies until very recently had seemed unaware that each of its new programs stimulated additional demand for health care, thereby adding to the cost spiral. Demand has been further stimulated by billions for research, which has benefited millions but at a very high cost.

Politicians justifiably direct their cost containment efforts at greedy providers of health services, but it is neither brave nor entirely effective for them to leave out perhaps the most important element in the cost spiral — the public. And it is the public that Deputy Attorney General Brown is trying to protect with his cost containment efforts.

The trouble is the vast majority of Americans are thoroughly spoiled. They expect the best and the most — and at wholesale prices. They abuse their bodies with too much food, drink and tobacco and then expect miracle-making medics to make them well again. And if that doesn't work, they sue.

They want an emergency room five minutes from every home; a super-equipped, staffed (24 hours a day) hospital close by; and a doctor whose technical knowledge is superb.

They expect health professionals to solve their health problems for them, even those problems only they themselves can solve. Individual patients expect to receive a multitude of services for themselves — the "best" — but grow angry when they hear what Medicaid costs taxpayers.

Americans—and Mr. Brown—seem oblivious to the fact that it is not possible to have all of these things — and much more besides — and still contain the costs of health care. — *Wheeling, WV Sunday News-Register*, September 13, 1981.

BONANZA

Most West Virginia physicians know this by now, but the Mid-Winter Clinical Conference, again set for Charleston January 22-24, consistently offers them the biggest bang for their continuing medical education buck. Recent stories and other information in recent, and this, issues of *The West Virginia Medical Journal* promise that the 1982 sessions will be of the usual high quality. It's not too early to register, and to make other plans. Further information will be provided in coming weeks. We urge your closest attention to it.

GENERAL NEWS

Geriatrics, Radiology, Ob-Gyn Speakers On Program

A geriatrics director, therapeutic radiologist and obstetrician-gynecologist have been named to speak during the 15th Mid-Winter Clinical Conference.

The week-end continuing education program will be held January 22-24 in Charleston at the Holiday Inn Charleston House under the sponsor-

John B. Haslam, M. D.

Juan L. Granados, M. D.

ship of the State Medical Association and the Marshall University and West Virginia University Schools of Medicine.

Richard H. Kiley, Jr., Ph.D., Adult and Geriatric Program Director at the Appalachian Mental Health Center in Elkins, will speak and conduct a demonstration on "Problems of the Elderly: An Analysis and Simulation" during the Saturday morning, January 23, session.

Dr. John B. Haslam of Charleston will be one of two speakers on "Prostatic Carcinoma" during the Saturday afternoon session on "Current Controversies in Medicine; and Dr. Juan L. Granados of Morgantown will discuss "Recognition and Management of High-Risk Mothers" during the Sunday morning session.

Doctor Haslam is in private practice as a therapeutic radiologist, and is a WVU Clinical Associate Professor of Radiology, while Doctor Granados is WVU Associate Professor of Obstetrics and Gynecology.

Dr. D. Franklin Milam of Morgantown, WVU Professor of Surgery and Chairman of the Department of Urology, as announced previously, will be the other speaker on "Prostatic Carcinoma."

Also as announced previously, Dr. Herbert H. Pomerance (following Doctor Granados) will speak on "Recognition and Management of High-Risk Infants." Doctor Pomerance is Chairman of the Department of Pediatrics at Charleston Area Medical Center, and Professor and Director of Pediatrics, WVU Charleston Division.

The program will begin Friday afternoon, January 22, with talks on current diagnostic procedures in heart disease, followed that evening by a physicians' session presented by the West Virginia Medical Institute, Inc., and a concurrent public session on food additives.

Additional Speakers

As announced previously, the following additional speakers and topics will be on the program:

Saturday Morning: "Food Additives" (repeated for physicians) Donald S. Robinson, M. D., MU Chairperson of the Department of Pharmacology, and Professor of Pharmacology and Medicine;

Saturday Afternoon Session, "Current Controversies in Medicine": "Pneumoconiosis-Occupational Lung Disease (Black Lung Controversy)" — N. LeRoy Lapp, M. D., WVU Professor of Medicine and Chairman, Division of Pulmonary Diseases; and Donald L. Rasmussen, M. D., Director, Appalachian Pulmonary Laboratory, Inc., Beckley, and MU Clinical Assistant Professor of Medicine;

Sunday Morning: "Diagnosis and Treatment of Functional Disorders of the Thyroid" — Stanley R. Shane, M. D., Morgantown, WVU Professor of Medicine and Chief, Section of Endocrinology and Metabolism; and Richard E. Kleinmann, M. D., Assistant Professor of Medicine, WVU Charleston Division.

The program meets the criteria for 14 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Associ-

ation, and also is acceptable for 14 Prescribed hours by the American Academy of Family Physicians.

Doctor Kiley, who has been in his present position in Elkins since 1976, has developed 17 different workshops on various aspects of aging, including "Death and Dying," "Instant Aging," "Sexuality and Aging," and "Pre-retirement."

He has served as a member of the Advisory Board of the Summer Institute on Aging; Clinical Instructor in the Department of Psychiatry at Marshall University; a discussion leader for a tele-lecture series on community mental health; a participant in the National Institute of Mental Health Staff College on Aging, and member of the Governor's Task Force on Health Care for the Elderly.

University of Southern Mississippi

Doctor Kiley earned his B.A. degree from Mercer University, and received his Master's Degree in Community Counseling and Ph.D. in Counseling Psychology from the University of Southern Mississippi.

His experience in the field includes two years of institutionalized geriatric group counseling and one year of Veterans Administration contract counseling of veterans and dependents.

Dr. John Traubert, left, Chairman of the Department of Family Practice in the West Virginia University School of Medicine, chats with some of the physicians attending the recent seventh annual Hal Wanger Family Practice Conference at the Medical Center. From left, they are Drs. George M. Kellas, Director of the Family Practice Residency Program at Wheeling Hospital; J. C. Huffman, Buckhannon; Norris B. Groves, Martinsburg, and Earl D. Allara, Charles Town.

Doctor Haslam was in private practice as a therapeutic radiologist in Asheville, North Carolina, for six years before moving to Charleston in 1977. He also was Chief, Division of Radiation Oncology, Department of Radiology, at Memorial Mission Hospital in Asheville.

A native of Birmingham, Alabama, Doctor Haslam was graduated from Virginia Military Institute and received his M. D. degree in 1965 from Duke University. He interned in surgery at the University of Utah in 1965-66 and then served with the U. S. Army until 1968.

He returned to Duke University for a residency in therapeutic radiology from 1968 to 1971, receiving board certification in that specialty in 1972.

Doctor Granados has been in his present position since June, 1980, coming to Morgantown from the University of Maryland where he completed his internship and residencies in obstetrics and gynecology, and served as Assistant Professor of Obstetrics and Gynecology (1974-1980).

A native of Sevilla, Spain, he received his M. D. degree from the University of Madrid in 1966.

He was certified by the American Board of Obstetrics and Gynecology in 1975, and by that

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

Clinical Cardiology, 3rd Edition, by Maurice Sokolow, M. D.; and Malcolm B. McIlroy, M. D. 763 pages. Price $21.50. Lange Medical Publications, Los Altos, California 94022. 1981.

General Urology, 10th Edition, by Donald R. Smith, M. D. 598 pages. Price $19.50. Lange Medical Publications, Los Altos, California 94022. 1981.

Lifelong Sexual Vigor: How to Avoid and Overcome Impotence, by Marvin B. Brooks, M. D., and Sally West Brooks, R.N. 249 pages. Price $12.95. Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10017. 1981.

Board's Division of Maternal-Fetal Medicine in 1980.

Doctor Granados is a member of the Perinatal Committee of the West Virginia Health Department and a member of the Maternal Mortality Committee of the West Virginia Section, American College of Obstetricians and Gynecologists.

He is the author or co-author of some 10 abstracts and articles, and has lectured throughout the state, including presentations for annual spring perinatal workshops on improved pregnancy outcome.

A registration fee of $50 will be charged all registrants except nurses, medical students, interns and residents. For advance registration, make checks payable to West Virginia State Medical Association, and mail to the Association at P. O. Box 1031, Charleston 25324.

Serving on the Program Committee are Drs. Ralph H. Nestmann and Joseph T. Skaggs, both of Charleston, Co-Chairmen; and Drs. William O. McMillan, Jr., Charleston; Maurice A. Mufson, Huntington; Robert L. Smith, Morgantown, and C. Carl Tully, South Charleston.

Continuing Assistance

The Committee also is receiving continuing assistance from WVU Charleston Division staff members J. Zeb Wright, Ph.D., Coordinator of Continuing Education, Department of Community Medicine; and Sharon A. Hall, Conference Coordinator.

The remaining speakers, and final program details, will appear in the January issue of *The Journal.*

Weinstein Also Teacher

Dr. George W. Weinstein, Professor and Chairman of the Department of Ophthalmology, West Virginia University School of Medicine, was the third West Virginia physician to teach a postgraduate course during the annual meeting of the American Academy of Ophthalmology November 1-6 in Atlanta.

This was announced separately following a prior Academy news release naming Drs. Albert C. Esposito of Huntington and J. Elliott Blaydes, Jr., of Bluefield as teachers for postgraduate courses during the meeting (story in November issue of *The Journal*). Doctor Weinstein is Secretary-Treasurer of the American Association of University Professors in Ophthalmology and Editor of *Ophthalmology Surgery.*

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1981 and 1982, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education, and J. Zeb. Wright, Ph. D., Coordinator, Continuing Education, Department of Community Medicine, Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Morgantown, Charleston and Wheeling campuses. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

Dec. 5, Charleston, Arthritis Foundation—Scientific Meeting

Dec. 5, Morgantown, Visiting Professor, Dept. of Orthopedics

Dec. 12, Morgantown, Visiting Professor, Dept. of Orthopedics

Jan. 27-30, Snowshoe, Third Mid-Winter Cardiovascular Symposium

March 26, Charleston, 9th Annual Newborn Day

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Buckhannon, St. Joseph's Hospital, 3rd floor, 3rd Thursday, 7-9 P. M.—Dec., Jan., Feb. (winter break)

March 18, "Drug Interaction, Part II," Carl Malanga, Ph.D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M.—Dec. 9, "Guidelines and Protocols for Establishing a Prenatal Clinic in a Primary Care Center," Narinder Sehgal, M. D., and Susan Pahl, R. N.

Jan. 13, "Treating Behavioral Problems in Children and Adolescents" (speaker to be announced).

Feb. 10, "Common Musculo-Skeletal Problems in Children," Robert Ghiz, M. D.

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M.—Dec. 2, "Malpractice: The Law and Health Delivery" (speaker to be announced).

Madison, Madison-Danville Junior High School, West Madison, 2nd Tuesday, 7-9 P. M.—Dec. 8, "Acute Trauma Care, With Special Attention to CHS Injury & Multiple Triage," Jack Page, M. D.

Jan., Feb. (winter break).

Oak Hill, Oak Hill High School (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M.—Dec., Jan. (winter break).

Feb. 23, "Fluid & Electrolyte Balance: Monitoring & Management," Warren Point, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 11 A. M.-1 P. M.—Dec. 16, "Cardiac Update Including Guidelines for Surgery," Allen Schaeffer, M. D.

Jan., Feb. (winter break).

March 17, "Rheumatology Update," Anthony DiBartolomeo, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M.—Dec., Jan., Feb. (winter break).

March 24, "Diagnosis & Treatment of Chronic Alcoholism" (speaker to be announced).

Williamson, Appalachian Power Auditorium, 1st Thursday, 6:30-8:30 P. M.—Dec. 3, "Use of Drugs in Treating Mental Illnesses" (speaker to be announced).

Jan., Feb. (winter break).

March 4, "Obstetrics Update: Labor & Delivery," Narinder Sehgal, M. D.

April 1, "Eye Trauma," George Hamrick, M. D.

Medical Meetings

Dec. 3-5—Am. Epilepsy Society, New York City.

Dec. 4-5—Am. College of Chemosurgery, San Francisco.

Dec. 5-8—Am. Society of Hematology, San Antionio, Tex.

Dec. 5-10 — Am. Academy of Dermatology, San Francisco.

Dec. 6-9—Interim Meeting, AMA House of Delegates, Las Vegas.

Dec. 8-10—Am. Cancer Society National Conference —Gastrointestinal Cancer 1981, Miami Beach.

1982

Jan. 6-9—Am. Assn. for the Study of Headache, Scottsdale, AZ.

Jan. 9-16—Colorado Pain Symposium (Boulder Memorial Hospital), Aspen.

Jan. 16-20—Am. College of Allergists, Bal Harbour, Fla.

Jan. 22-24—15th Mid-Winter Clinical Conference, Charleston.

Jan. 25-27—Am. Society for Laser Med. & Surgery, Hilton Head Island, S. C.

Feb. 3-7—Am. College of Psychiatrists, Orlando, Fla.

Feb. 25-28—AMA National Leadership Conference, Chicago.

March 3-8—International Conference of the Assn. for Children & Adults With Learning Disabilities, Chicago.

March 5-7 — Cardiovascular Disease Epidemiology (Council on Epidemiology, Am. Heart Assn.; & National Heart, Lung & Blood Institute), San Antonio.

March 5-10—Am. Society of Abdominal Surgeons, Las Vegas.

March 17-20—Neurosurgical Society of Am., Marco Island, Fla.

March 20-25—Am. Academy of Pediatrics, Honolulu.

March 21-25—Am. Fertility Society, Las Vegas.

April 15-18— WV Chapter, AAFP, Morgantown.

April 22-23—WV Chapter, Am. Academy of Pediatrics, Morgantown.

April 25-27 — Am. Society of Clinical Oncology, St. Louis.

April 25-29—Am. College of Cardiology, Atlanta.

April 26-29—Am. College of Obstetricians & Gynecologists, Dallas.

May 2-5—WV Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

May 5-6—Am. Society for Head & Neck Surgery, Palm Beach, Fla.

May 10-14 — Am. Roentgen Ray Society, New Orleans.

May 13-16 — Federation of State Medical Boards, New Orleans.

May 16-20—Am. Urological Assn., Kansas City, Mo.

Aug. 26-28—115th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.

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WVU Medical Center
–News–

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Jet Ventilation Research Gets National Recognition

Two WVU doctors have received national recognition for their research efforts toward solving one of critical care medicine's dilemmas.

Drs. Harakh V. Dedhia and Frank Schiebel reported on their research on "Pulmonary and Hemodynamic Effect of 'Jet Ventilation' High Frequency Ventilation in Open Heart Surgery Patients" at the summer meetings of the American Thoracic Society and the World Congress of Critical Care Medicine.

Because the research was adjudged outstanding by the anesthesia consultant of Medical Portfolio, Inc., it was chosen to be the subject of a taped interview with Doctors Dedhia and Schiebel.

Doctor Dedhia is Associate Director of the intensive care unit at University Hospital and an Assistant Professor of Anesthesiology; Doctor Schiebel, Instructor, Anesthesiology.

They were supported in their year-long study by the WVU Medical Corporation and a biomedical research grant from the National Institutes of Health.

Mechanical ventilation by conventional respirators presents problems. When the air from the machine enters the lung, it raises the pressure. Too-high pressure can damage the lungs or interfere with circulation to the heart, causing a reduced cardiac output.

The problem: to provide adequate ventilation without raising the air pressure within the lungs to dangerously-high levels.

The solution: shorter volumes of air administered in more frequent and shorter "breaths."

To begin their research, Doctors Dedhia and Schiebel turned to a respirator which had been around since 1967 in one model or another. Known as the high frequency "jet" ventilator, it primarily is used for short periods of time in operating rooms, intensive care units and in emergency medicine.

Doctor Dedhia explained the difference between the jet ventilator and a conventional respirator.

"The jet ventilator can go anywhere from eight breaths a minute up to 600. Most postoperative patients at an early phase would be ventilated at 100-150 breaths a minute. That's a major change from the conventional respirator where patients would be ventilated at 10-15 breaths a minute.

"The conventional machine is large and complicated. The jet machine which we used is compact and relatively simple. It is about 12 inches long by six inches high. It can work on electricity or a battery and can be made portable."

Fetal Surgery By WVU Grad Drawing Attention

A WVU graduate is receiving national attention for his work in operations that have saved the lives of unborn babies at the Medical College of Virginia Hospital.

Robert E. Petres, a 1965 graduate, and a colleague successfully drained the collapsed lung of one patient recently and unblocked the kidney of another three months earlier.

Such fetal surgery is an entirely new field in medicine, and Doctor Petres and Dr. Fay Redwine are unaware that either procedure had been used successfully before.

The most recent case involved Mrs. Deborah Pinion, a nurse whose obstetrician sent her to the Medical College of Virginia after detecting a problem. Ultrasound machines at the college indicated the fetus had a collapsed lung, the first ever seen in 30,000 cases there.

With the help of the ultrasound picture on a television screen, Doctors Redwine and Petres guided a long, thin needle into the fetus and drained an accumulation of fluid from the left lung. Until the ultrasound procedure was developed, doctors had no option of intervening until the baby was born.

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Cost-Cutting Should Not Reduce Usage, AMA Tells Congress

The specific goals of consumer-choice national health proposals—achieving greater cost-consciousness and individual responsibility in selection of insurance coverage and seeking health care—"are meritorious and should be pursued," the American Medical Association recently told Congress.

The House Ways and Means Subcommittee on Health was told by the AMA that "when considering legislation to implement the 'competition' theory, however, it is important to point out that proposals should not be allowed to restrain the appropriate use of needed medical services."

Fred Rainey, M. D., Chairman of the AMA Council on Legislation, testified that "it is important to state at the outset that all increases in medical care costs over the past two decades do not represent a 'problem,' but in fact reflect solutions to long-term public health problems such as high infant mortality and poor access to care."

The Kentucky physician noted that the AMA has been greatly concerned about cost increases and has been actively engaged in activities designed to bring these increases under control.

A consumer-choice bill should not be used to create incentives to under-insure, Doctor Rainey said. "Furthermore, no legislative initiative should be considered that would have the effect of rationing or lowering the quality of care in this country."

Patient Package Insert Plans By FDA Get Opposition

The AMA has joined an assortment of professional and pharmaceutical groups in urging the Food and Drug Administration (FDA) to pull back from plans to mandate patient package inserts (PPIs) for 10 commonly-prescribed drugs.

The three-year pilot program was put on hold early this year by FDA Commissioner Arthur Hull Hayes, Jr., M. D. The Commissioner has said that he favored providing information to patients about drugs, but was seeking new information about benefits and costs.

In AMA testimony, Trustee Alan R. Nelson, M. D., said a PPI must "have a demonstrable effect on patient compliance with a drug regimen in order for it to be deemed clinically or cost effective." If it doesn't, then it provides no benefit to patient or physician, he said.

While questioning the validity of a study of PPIs conducted for the FDA by the Rand Corporation, Doctor Nelson noted that the study appeared to show that PPIs did not improve patient compliance with prescribed drug therapy, and urged the agency to rescind the mandatory PPI program.

Doctor Nelson said the AMA supports the provision of information about drugs to patients by physicians, and he urged the FDA to consider the possibility of a private-sector demonstration program with physicians, rather than pharmacists, as the dispensers of information.

Fee Increase For Surveys Announced By JCAH

A schedule of fee increases for hospital surveys has been announced by the Joint Commission on Accreditation of Hospitals. The JCAH said the 60-per cent increase in fees will compensate for inflation and for the revenues that will be lost when the Commission switches to a three-year accreditation cycle. The new fee for general acute care hospitals will be $1,000 per surveyor per day. Most survey teams include four surveyors, and inspection lasts from one to three days.

John Affeldt, M. D., JCAH President, said that since the new three-year program means surveyors will visit hospitals less frequently, the actual cost per year should only increase by 6.6 per cent.

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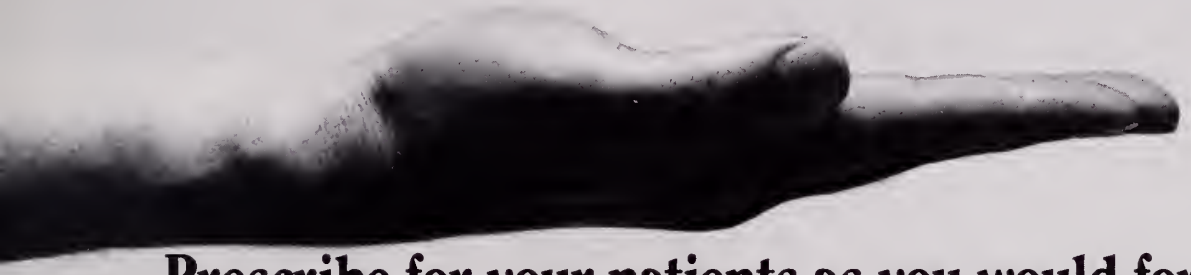

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Obituaries

DONALD W. PETERSON, M. D.

Dr. Donald W. Peterson of Bradley (Raleigh County), formerly of Huntington, died on October 29. Authorities said he leaped from the New River Gorge bridge. He was 41.

Doctor Peterson formerly was a pathologist with the Veterans Administration Medical Center in Beckley. He came to West Virginia in 1979 as a pathologist at the Huntington VA Medical Center and Assistant Professor of Pathology at the Marshall University School of Medicine.

Doctor Peterson went to the Beckley VA Medical Center in July, 1980, remaining there until his resignation shortly before his death.

A native of Duluth, Minnesota, he was graduated from the University of Minnesota, and received his M. D. degree in 1964 from that institution's Medical School. He interned in Los Angeles and at the University of South Carolina in 1964-65, and completed a residency in pathology at the University of Maryland Hospital (1974-78).

Doctor Peterson also received a Ph.D. in 1974 from Johns Hopkins University's Institute of the History of Medicine.

He was a member of the Cabell County Medical Society, the West Virginia State Medical Association and the American Medical Association.

Surviving is one brother in Duluth.

* * *

HARRY A. CARNEY, M. D.

Dr. Harry A. Carney of Charleston, a dermatologist, died on November 6 in a hospital there. He was 77.

A native of Charleston, Doctor Carney attended West Virginia University and received his M. D. degree in 1930 from the Medical College of Virginia. He completed an internship and residency at the former Mountain State Hospital in Charleston.

Doctor Carney, who was a lieutenant colonel in the U. S. Army Medical Corps from 1940 to 1948, took his residency in dermatology in 1947 at City Hospital in New York City.

He was an honorary member of the Kanawha Medical Society, the West Virginia State Medical Association and the American Medical Association.

Survivors include the widow; a daughter, Mrs. Gloria Hooper of Charleston, and a sister, Mrs. Gladys Bishop of Charleston.

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Indications
Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications. Treatment of the following infections:
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Tonsillitis and pharyngitis caused by Group A beta hemolytic streptococci
Bronchitis and pneumonia caused by S. pneumoniae (formerly D. pneumoniae)
Otitis media caused by S. pneumoniae (formerly D. pneumoniae) and H. influenzae
Acute exacerbation of chronic bronchitis caused by H. influenzae*
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to H. influenzae
SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta hemolytic streptococci and staphylococci (non penicillinase producers)
URINARY TRACT INFECTIONS caused by E. coli and P. mirabilis (This drug should not be used in any E. coli and P. mirabilis infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
Contraindications Contraindicated in individuals with history of an allergic reaction to penicillins.
Warnings Cyclacillin should only be prescribed for the indications listed herein.
Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.
Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.
Precautions Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, exercise caution when cyclacillin is given to a nursing woman.
Adverse Reactions Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS.) Other less frequent adverse reactions which may occur and are reported with other penicillins are: anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia, and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semi-synthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta hemolytic streptococcal infections, at least 10 days treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
Patients with Renal Failure: Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
Dosage (Give in equally spaced doses)

INFECTION	ADULTS	CHILDREN*
Respiratory Tract		
Tonsillitis & Pharyngitis	250 mg q.i.d.	body weight 20 kg (44 lbs): 125 mg q.i.d. body weight 20 kg (44 lbs): 250 mg q.i.d.
Bronchitis and Pneumonia		
Mild or Moderate Infections	250 mg q.i.d.	50 mg/kg/day q.i.d.
Chronic Infections	500 mg q.i.d.	100 mg/kg/day q.i.d.
Otitis Media	250 mg to 500 mg q.i.d.	50 to 100 mg/kg/day
Skin & Skin Structures	250 mg to 500 mg q.i.d.	50 to 100 mg/kg/day
Urinary Tract	500 mg q.i.d.	100 mg/kg/day

*Dosage should not result in a dose higher than that for adults.
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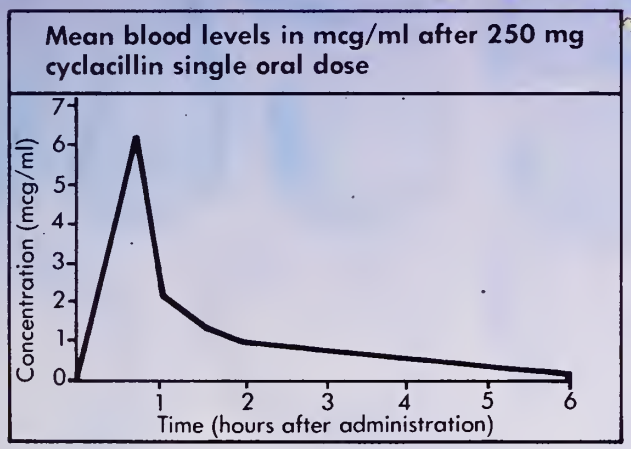

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NEW NAME

County Societies

TYGART'S VALLEY

Dr. L. Blair Thrush of Morgantown was the guest speaker for the scientific program of the Tygart's Valley Medical Society on October 15 at Broaddus Hospital in Philippi.

Doctor Thrush, who spoke on "Allergic Diagnostics and Therapeutics Review," is Assistant Professor of Medicine and Chief, Section of Allergy, West Virginia University Medical Center.

Following the scientific session, there was a business meeting and election of officers. — Michael M. Stump, M. D., Secretary.

* * *

McDOWELL

Dr. John B. Markey of Charleston, President of the State Medical Association, was the guest speaker for the meeting of the McDowell County Medical Society on October 14 at Stevens Clinic Hospital in Welch.

Doctor Markey, who was accompanied by Mrs. Markey, discussed the recent changes in the welfare fee schedule, increasing efficiency of the State Workmen's Compensation Fund, malpractice insurance changes, the State Medical Association's building program in Charleston, useful functions of the American Medical Association, and the activities of certain groups which are changing the way in which medicine is being practiced.—Muthusami Kuppusami, M. D., Secretary.

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Answers To Review Article Questions

(Questions on Page 308)

A. 1. True. *P. aeruginosa* infections are relatively rare in normals except for an occasional patient with chronic infection of the ear or genitourinary tract. However, *P. aeruginosa* commonly causes infections in patients who are immunocompromised, granulocytopenic, or otherwise debilitated.

2. False. *P. aeruginosa* can be found almost everywhere, particularly if the environment is moist. They are known to survive with a minimum of nutrients and under the most adverse circumstances, e.g., in certain antiseptic solutions.

3. False. An aminoglycoside, given alone, is not effective against pseudomonas infection in the granulocytopenic patient. Since carbenicillin or ticarcillin *is* effective in the absense of granulocytes, and because the combination of an aminoglycoside plus carbenicillin (or ticarcillin) acts synergistically against *P. aeruginosa*, it is appropriate to administer the combination.

4. True. One half to two thirds of cystic fibrosis patients with pseudomonas colonization/infection have mucoid strains which are rarely encountered in other clinical situations. Some consider the presence of mucoid pseudomonas in the respiratory tract as an additional diagnostic criterion for cystic fibrosis.

5. False. The most frequent cause of infection in burn patients are *Staphylococcus aureus* and *Pseudomonas aeruginosa*.

B. 6. Patients with diabetes mellitus, the elderly and the immunosuppressed are likely to develop malignant external otitis due to *P. aeruginosa*. This process is potentially life-threatening and requires aggressive management with parenteral antibiotics and surgical debridement.

7. Anatomical abnormalities of the genitourinary tract, indwelling bladder catheters, and previous antibiotics (usually multiple courses) are known predisposing factors to pseudomonas urinary tract infections.

8. Occurs primarily in the aged. Patient has marked apprehension, systemic toxicity, cyanosis, mental confusion and relative bradycardia. Chest roentgenogram shows diffuse, often bilateral, bronchopneumonia with frequent microabscess formation.

9. Osteomyelitis due to *P. aeruginosa* is seen primarily in drug addicts or in patients who have had open-heart surgery. It sometimes follows urinary tract infections.

10. *P. aeruginosa* invades the walls of blood vessels causing acute vasculitis and subsequent necrosis. The organism produces a number of enzymes and toxins which may play a role in the pathogenesis of human disease.

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Book Review

HALOPERIDOL UPDATE: 1958-1980 — Frank J. Ayd, Jr., M. D., Editor. 234 pages. Price $20. Ayd Medical Communications, Baltimore, Maryland 21210. 1980.

Under the editorial guidance of Frank J. Ayd, Jr., M. D., clinicians and faculty of 13 major institutions in the United States and three foreign countries have successfuly provided the most thorough and practical guide on haloperidol currently available.

The text is divided into 20 chapters, beginning with an interesting personal journal on the research and development of haloperidol and an overview of general antipsychotic drug usage.

The methods for treating acute psychotic emergencies are explained in chapters 3, 4 and 5. Accurate diagnosis, safety and efficacy, and methods of administration of haloperidol for this purpose are explained with clear, scientific explanations.

Chapters 6, 7, 8 and 9 discuss current uses of haloperidol alone and in combination with lithium in manic patients from both the medical and legal points of view. This will be of interest to practitioners in general, and should be required reading for psychiatrists.

Use of haloperidol as an effective analgesic is reviewed in Chapter 11. Demonstration of its ability to bind to brain opiate receptons lends experimental support for its application as an analgesic in the clinical setting. The need for more controlled studies is encouraged both for enhancing treatment as well as further elucidating "the fascinating overlays between pain process, neurochemistry, neurophysiology and psychopathology."

The use of haloperidol and other antipsychotics as adjuncts to treating a most difficult group of patients, Borderlines, is addressed in Chapter 12. It is highly appropriate to devote a separate chapter to this special use of antipsychotics, and aids in pointing out the need for further controlled drug studies with refined diagnosis in this area.

Guidelines for maintenance pharmacotherapy, copharmacy of psychotropic drugs and haloperidol in the treatment of delerium tremens are discussed in a practical fashion in chapters 13, 14 and 15.

Two entire chapters devoted to Tardive Dyskinesia and an additional chapter on ethical and legal dilemmas posed by Tardive Dyskinesia provide the practitioner and expert witness with invaluable information.

Updates in separate chapters on the treatment of geriatric patients and monitoring of drug levels round out this review of haloperidol.

My only criticism of this text is the failure to provide an update on the indications and guidelines for using haloperidol intravenously.

This reasonably-priced book is comprehensive and is an excellent, up-to-date resource. While focused specifically on haloperidol it provides broad information on other antipsychotic drugs and modern management of psychosis in general. I recommend it to all medical professionals. — Sidney C. Lerfald, M. D.

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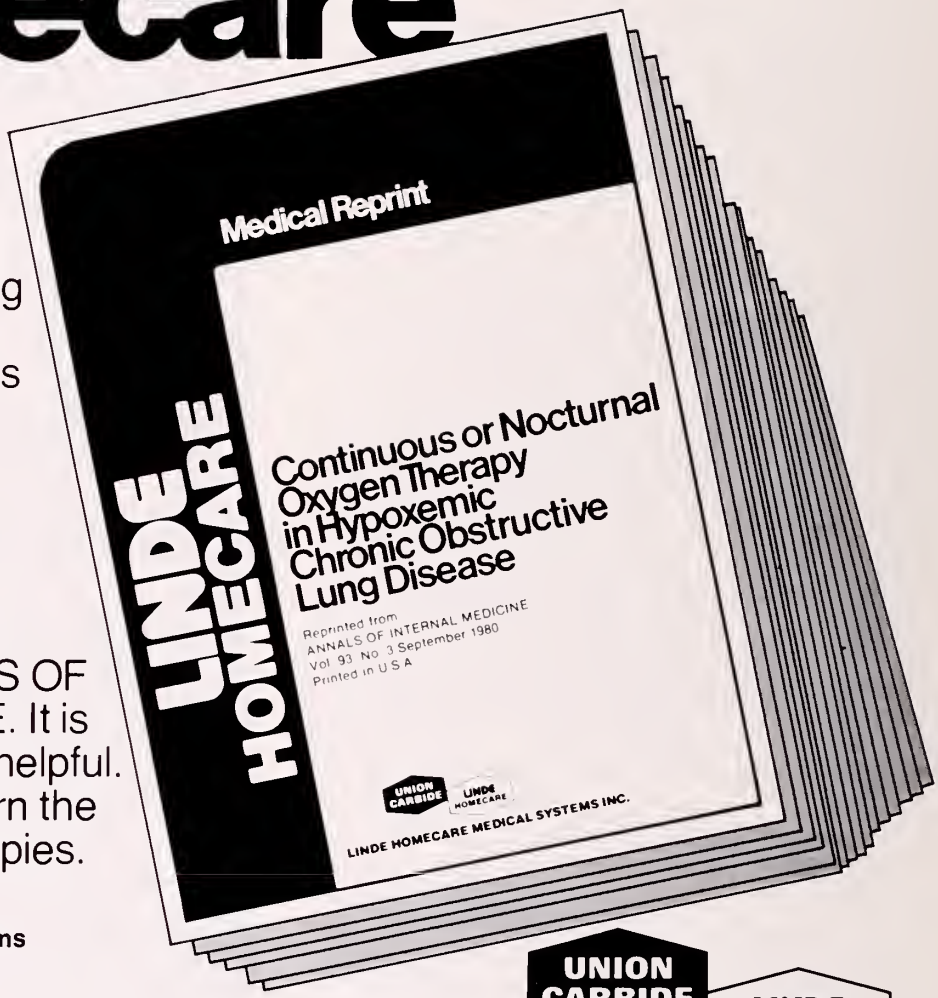

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Indicstions snd Ussgs: For the trsstmsnt of urinsry tract infsctions dus to suscsptibls strains of the following organisms: *Escherichia coli, Kisbsiella-Enterobactsr, Protaus mirabilis, Protsus vulgaris, Proteus morganii.* It is recommendsd thst initisl spisodss of uncomplicstsd urinsry trsct infsctions bs trsstsd with s singls sffsctiva sntibsctarial sgsnt rsthsr thsn the combination. *Note:* The increasing frequency of resistant organisms limits the usefulness of all antibacterials, especially in these urinary tract infections.

For scuta otitis msdia in childrsn dus to suscsptibls strsins of *Haemophilus influsnzaa* or *Streptococcus pnsumonias* when in physicisn's judgmsnt it offsrs an sdvsntsgs ovsr othar antimicrobisls. Limited clinicsl informstion prsssntly svailabls on sffsctivsnsss of trsstment of otitis msdis with Bsctrim whsn infsction is dus to smpicillin-rssistsnt *Hasmophilus influsnzas.* To dsts, thsre sre limitsd dsta on ths safaty of rspsstsd uss of Bsctrim in childrsn undsr two yssrs of sge. Bactrim is not indicatad for prophylsctic or proiongsd sdministrstion in otitis msdis st any sgs.

For scuts axscsrbstions of chronic bronchitis in sdults dua to suscsptibls strsins of *Hasmophilus influsnzas* or *Streptococcus pneumoniae* when in physicisn's judgmsnt it offsrs sn sdvsntsgs ovsr s singls sntimicrobisl sgsnt.

For entaritis dus to suscsptible strsins of *Shigella flexneri* snd *Shigella sonnei* whan sntibsctsrisl thsrspy is indicatsd.

Also for ths trestmsnt of documantsd *Pneumocystis carinii* pnsumonitis. To dsts, this drug hss been tested only in pstiants 9 months to 16 yaars of ags who wera immunosuppressed by cancer therspy.

Contrsindicstions: Hypersensitivity to trimethoprim or sulfonamides; patients with documented megaloblastic anemia due to folate deficiency; pregnancy at term; nursing mothers because sulfonamides are excreted in human milk and may cause kernicterus; infants less than 2 months of age.

Warnings: BACTRIM SHOULD NOT BE USED TO TREAT STREPTOCOCCAL PHARYNGITIS. Clinical studies show that patients with group A β-hemolytic streptococcal tonsillopharyngitis have higher incidence of bacteriologic failure when treated with Bactrim than do those treated with penicillin. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been associated with sulfonamides. Experience with trimethoprim is much more limited but occasional interference with hematopoiesis has been reported as well as an increased incidence of thrombopenia with purpura in elderly patients on certain diuretics, primarily thiazides. Sore throat, fever, pallor, purpura or jaundice may be early signs of serious blood disorders. Frequent CBC's are recommended; therapy should be discontinued if a significantly reduced count of any formed blood element is noted.

Precsutions: *General:* Use cautiously in patients with impaired renal or hepatic function, possible folate deficiency, severe allergy or bronchial asthma. In patients with glucose-6-phosphate dehydrogenase deficiency, hemolysis, frequently dose-related, may occur. During therapy, maintain adequate fluid intake and perform frequent urinalyses, with careful microscopic examination, and renal function tests, particularly where there is impaired renal function. Bactrim may prolong prothrombin time in those receiving warfarin; reassess coagulation time when administering Bactrim to these patients.

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Adverse Resctions: All major reactions to sulfonamides and trimethoprim are included, even if not reported with Bactrim. *Blood dyscrasias:* Agranulocytosis, aplastic anemia, megaloblastic anemia, thrombopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia. *Allergic reactions:* Erythema multiforme, Stevens-Johnson syndrome, generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis. *Gastrointestinal reactions:* Glossitis, stomatitis, nausea, emesis, abdominal pains, hepatitis, diarrhea and pancreatitis. *CNS reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia, apathy, fatigue, muscle weakness and nervousness. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities to some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia in patients; cross-sensitivity with these agents may exist. In rats, long-term therapy with sulfonamides has produced thyroid malignancies.

Dosage: Not recommanded for infsnts less thsn two months of sge.

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1. Rubin RH, Swartz MN: *N Engl J Med 303*:426-432, Aug 21, 1980. 2. Data on file, Medical Department, Hoffmann-La Roche Inc.

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